



-
- title :** Muslim Religious Architecture. Part 2, Development of Religious Architecture in Later Periods Iconography of Religions. Section XXII, Islam; Fasc. 3
- author :** Kuban, Dogan.
- publisher :** Brill Academic Publishers
- isbn10 | asin :** 9004070842
- print isbn13 :** 9789004070844
- ebook isbn13 :** 9780585240046
- language :** English
- subject** Architecture, Islamic.
- publication date :** 1985
- lcc :** NA4610.K83 1985eb
- ddc :**
- subject :** Architecture, Islamic.

Muslim Religious Architecture

INSTITUTE OF RELIGIOUS ICONOGRAPHY
STATE UNIVERSITY GRONINGEN

ICONOGRAPHY OF RELIGIONS

EDITED BY

TH. P. VAN BAAREN, L. P. VAN DEN BOSCH, H. G. KIPPENBERG, L. LEERTOUWER,
F. LEEMHUIS, H. TE VELDE, H. WITTE, AND H. BUNING (*Secretary*)

SECTION XXII: ISLAM

FASCICLE THREE



LEIDEN
E. J. BRILL
1985

Muslim Religious Architecture

Part II

Development of Religious Architecture in Later Periods

By
Dogan * Kuban

Professor of History of Architecture
Istanbul Technical University
With 34 figures and 43 plates



LEIDEN
E. J. BRILL
1985

ISBN 90 04 07084 2

Copyright 1985 by E. J. Brill, The Netherlands

All rights reserved. No part of this book may be reproduced or translated in any form, by print, photoprint, microfilm, microfiche or any other means without written permission from the publisher

PRINTED IN THE NETHERLANDS BY E. J. BRILL

Contents

Preface	vii
Select Bibliography	ix
I. Mosque Architecture: Its Development by Regions	1
Egypt in the Fatimid Period	1
The Mosque in North Africa after the Ninth Century	2
Mamluk Architecture in Egypt	5
Mosque Architecture in Areas of Irano-Turkish Culture (Iran, Central Asia and Afghanistan)	7
Mosques in the Indian Sub-Continent	14
Mosque Design in the Anatolian-Turkish Region	18
II. Religious Architecture other than Mosques	27
Religious Memorials and Tombs of Holy Men	27
Institutions of Learning: The Madrasa	33
The Muslim 'Convent': The <i>Ribat</i> *, The <i>Khanqah</i> *, The <i>Zawiya</i> *	37
Catalogue of Illustrations	41

Preface

The first fascicle ended with the observation that the religious content of mosque design retained a fundamental homogeneity throughout its history. But its stylistic development became more and more diversified as it moved further in time and space from the centre of classical Islam and underwent modifications induced by the varying tenacity with which pre-Muslim traditions survived after the establishment of Islam. It was in the Arabic-speaking lands of North Africa and Syria that the mosques closest in spirit to the early Arab mosque tradition continued to be built, whereas in Iran and Central Asia quite another type evolved.

At the two extremes of the classic domain of Islam, in the Indian and Ottoman areas, types of mosque were created which diverged widely from the Arab tradition although they had started from the early Arab and Iranian formulas. The Ottoman style finally crystallized in huge domed structures. The strong regional traditions of India gave rise to a multitude of variations on the original mosque plan under the different pre-Muslim influences.

Similar but even more divergent treatments are to be found in other parts of the Islamic world such as Central Africa or Indonesia. Here the symbolism of older local cults gave quite a new meaning to the orthodox image of the mosque, with consequences in design which it would be outside the modest scope of this work to discuss.

DOGAN * KUBAN
1978

Select Bibliography

BATUR, S. "Osmanlı Camilerinde Sekizgen Ayak Sisteminin Gelişmesi Üzerine", *Anadolu Sanatı* araştırmaları *, I, (1968) pp. 139-163.

BERCHEN, M. VAN, "Origine de la Madrasa", *Matériaux pour un Corpus Inscriptionum Arabicarum*, Première Partie: Égypte, I-IV, Paris, 1894-1908, pp. 254-69 (1896), pp. 533-36 (1900).

BROWN, P., *Indian Architecture* (Islamic Period), Bombay, 1968, (Fifth Edition), first 1958.

CANAAN, T., *Mohammedan Saints and Sanctuaries in Palestina*, Jerusalem, 1927.

COHN-WENER, E., *Turan, islamische Baukunst in Mittelasien*, Berlin, 1930.

COUSENS, H., *The Architectural Antiquities of Western India*, London 1926.

CRESWELL, K.A.C., "The origin of the Cruciform Plan of Cairene Madrasas", *Bulletin de l'Institut Français d'Archéologie Orientale*, XXI (1923), pp. 1-54.

. Art. "Architecture", *EI*, 1960, French Ed., pp. 628-45.

CUNNINGHAM, A., *Archaeological Survey of India*, vols. I-XXIII, Simla, Calcutta, 1865-77.

DE MIRANDA, F., *The Mosque as work of Art and as House of Prayer*, Mirananda-Wassenaar, 1977.

DEMOMBYNES, G., *Le Pèlerinage à la Mekke*, Paris, 1923.

DESAI, ZIYAUD-DIN, *Mosques of India*, New Delhi, 1971, Sec. Ed.

. *Indo-Islamic Architecture*, New Delhi, 1970.

DIEZ, E., *Chwasanische Baudenkmaeler*, Berlin, 1918.

EYYUB SABRI, *mirat* al-Haramayn*, Istanbul, 1301 (1883/4).

FERGUSSON, J., *History of Indian and Eastern Architecture*, London, 1910.

GODARD, A., "Ardistan et Zaware", *Athar-é Iran*, Tome II/1, Paris, 1937.

. "Les Anciennes Mosquées de l'Iran", *Athar-é Iran*, II/1, Paris, 1937.

. *L'Art de l'Iran*, Paris, 1962.

GOLDZIEHER, I., "Die Heiligenverehrung im Islam", *Muhammedanische Studien*, Halle, 1890, pp. 275ff.

GOLVIN, L., *Essai sur l'Architecture Religieuse Musulmane*, Tome I, Généralités, Paris, 1970.

CRABAR, O., "The Umayyad Dome of the Rook", *Ars Orientalis*, III (1959), pp. 32-62.

. "The Earliest Islamic Commemorative Structures, Notes and Documents", *Ars Orientalis*, VI (1966), pp. 7-46.

GRÜTTER, I., "Arabische Bestattungsbräuche in frühislamischer Zeit, (nach Ibn sad* und buhari*)", *Islam*, 32 (1956), pp. 168-94.

GURLITT, C., *Die Baukunst Konstantinopels*, vols. I and III, Berlin, 1912.

HAVELL, E.B., *Indian Architecture* Its psychology, structure, and History from the first Muhammedan invasion to the present day, London, 1927, Second Ed., First 1913.

HERZFELD, E., "The Madrasa", in "Damascus: Studies in Architecture" *ArsIslamica*, IX (1942), pp. 40ff; 'The Cruciform Plan', X (1943), pp. 13-30.

. *Geschichte der Stadt Samarra*, Hamburg, 1948.

HÖVER, O., *Kultbauten des Islam*, Leipzig, 1922.

HURGRONJE, C.S., *Mekka*, Leyden, 1931, 2 vols.

katoglu*, M., "13. Yüzyıl Sonrasında Bir Cami Grubunun Plan Tipi ve Son Cemaat Yeri", *Türk Etnografya Dergisi*, 9 (1966), 1967, pp. 81-100.

KIZILTAN, M., *Anadolu Beyliklerinde Cami ve Mescitler (XIV. Yüzyıl Sonuna Kadar)*, İstanbul, 1958.

KOPRULU, F., "Ribât", *Vakıflar Dergisi*, II (1942), pp. 267-78.

KUBAN, D., *Osmanlı Dini Mimarisinde iç Mekân tesekkülü** (Rönesansla Bir Mukayese), İstanbul*, 1958.

. "Les Mosquées a coupole à Base Hexagonale", *Beiträge zur Kunstgeschichte Asiens, in Memoriam Ernst Diez*, İstanbul*, 1963, pp. 35-47.

KURAN, A., *The Mosque in Early Ottoman Architecture*, Chicago-London, 1968.

. *Anadolu Medreseleri I*, Ankara, 1969.

KÜHNEL, E., *Die Moschee*, Berlin, 1949.

LÉVI-PROVENÇAL, E., Art. "zawiya*", *EI*, IV (1934), pp. 1320-21.

LÉZINE, A., *Le Ribât de Sousse*, Tunis, 1956.

LÉZINE, A.-SEBAG, P., "Remarques sur L'Histoire de la Grande Mosquée de Kairouan", *Revue de l'Institut des Belles-Lettres Arabes à Tunis*, 24 (1961), 28 (1965).

LÉZINE, A., *Architecture de l'Ifriqiya*, Paris, 1966.

[< previous page](#)

page_ix

[next page >](#)

- MAKDISI, G., "Muslim Institutions of Learning in Eleventh-Century Baghdad", *Bulletin of the School of Oriental and African Studies*, vol.24 (1961), pp. 19ff.
- MARÇAIS, G., "Notes sur les ribats en Bérberie", *Melanges Rene Basset*, Paris, 1925, pp. 395-430
- . Art "ribat *", *EI*, III (1936), pp. 1150-53
- . *L'Architecture Musulmane d'Occident*, Paris, 1954.
- . G., "Salsabil et sadirwan*", *Etudes d'Orientalisme*, Lévi-Provençale, II (1962), pp. 639-48.
- MARTINI, G., *Istanbul, Tarihi Yapi Sanati*, Istanbul, 1936.
- NIZAMI, KH A., "Some aspects of Khanqah Life in Medieval India", *Studia Islamica*, VIII (1957), pp 51-69
- ÖGEL, S., *Der Kuppelraum der türkischen Architektuur*, Istanbul, 1972
- ÖZ, T., *Istanbul Camileri*, Ankara, vol. I (1962), vol. 2 (1965).
- PEDERSEN, J., "Some aspects of the History of Madrasa", *Islamic Culture*, III (1929), pp. 525-37
- . Art "Madrasa", *Handwörterbuch des Islam*, Leiden, 1941, pp. 382-393.
- PUGACHENKOVA, G.A., "Arkhiteturnie pamyatniki v selenii Astana-Baba", *Kratkie Soobshcheniya o dokladakh i polcvnikh Issledovaniyakh Instituta Istorii materialnoi* Kulturnie*, Moscow, 61 (1956), pp. 70-85.
- . "Mazar Arab-Ata v Time", *Soveskaya Arkheologia*, 1961 (4), pp. 198-211
- POPE, A.U., *Persian Architecture*, London, 1965.
- . (ed.) *A Survey of Persian Art from Prehistoric Times to the Present*, 6 vols, London, New York, 1938-1939
- RICHMOND, E.T., *The Dome of the Rock in Jerusalem*, Oxford, 1924.
- SMITH, M.B., "The Manars of Isfahan", *Athar-e-Iran*, vol.II, Fasc. 2, Paris, 1937.
- SOUDEL-THOMINE, J., "La Mosquée et la madrasa: Types monumentaux caractéristique de l'art islamique medieval" *Cahiers de civilisation médiévale*, XIIIe Année, Nr. 2 (1970).
- SÖZEN, M., "anadoluda* Eyvan tipi Türbeler", *Anadolu Sanati arastirmalari**, I (1969), pp. 167-209
- . *Anadolu Medreselen/Selçuklutar ve Beylikler Devri*, vol.I, Istanbul, 1970; vol. 2, Istanbul, 1972.
- TERRASSE, H., *La Mosquée al-Qaraowyin à Fès*, Paris, 1968
- THIERSCH, H., *Pharos, Antike, Islam und Okzident*, Ein Beitrag zur Architektur Geschichte, Leipzig und Berlin, 1909
- TORRES BALBAS, L., *Artes Almoravide y Almohade*, Madrid, 1955.
- ÜLGEN, A SAIM "Yeni Cami", *Vakiflar Dergisi* II (1942), pp. 387-397.
- VOGT-GOKNIL, U., *Türkische Moscheen*, Zurich, 1953
- . *Grands courants de l'architecture islamique, Mosquées*, Paris, 1975.
- WENSINCK, A.J., Art. "kaba*", *EI*, II (1924), pp. 584-92

. Art. "musalla*", *EI*, III (1936), pp. 805-6

WILBER, D., *Architecture of Islamic Iran: The Il-Khanid Period*, Holloway, 1969.

WÜSTENFELD, F., *Geschichte der Stadt Mekka nach den arabischen Chroniken bearbeitet*, Leipzig, 1861.

I Mosque Architecture: Its Development by Regions

Egypt in the Fatimid Period

First among the Berbers of North Africa to rise to power, the Fatimids came to Egypt from *ifriqiya* * in the ninth century. Though we might characterise their architecture as inventive more in decoration than in broad architectural concept the period does none the less mark the beginning of a specific Egyptian mosque style.

In its original conception the plan of the earliest Fatimid mosque, *Al-Azhar*, (Pl. I; Fig. 1) shows similarities with that of Ibn tulun*: it has a covered prayer hall with five aisles parallel to the *qibla* wall. This was perpendicularly divided by the standard central aisle outlined above by a clerestory and a dome over the bay before the *mihrab**. It seems that the mosque was roofed in wood. But at both ends of the aisle before the *qibla* wall a domed bay was introduced, a feature often repeated in later North African mosques. Along the sides of the courtyard arcades continued the sequence of those inside the mosque. *Al-Azhar*, which became one of the most important centres of Muslim education, later underwent radical alterations and completely lost its original aspect.¹

The alhakim* mosque, modelled on *al-Azhar*, introduced a conspicuous gateway projecting from the main facade*, with a minaret at either end of the entrance façade. This arrangement is usually attributed to the influence of earlier Fatimid buildings in North Africa.² In course of time the new feature, enriched with portals of eastern style, developed into the grandiose entrance façades of later Egyptian buildings. After these two mosques Egyptian architects seem to have become reluctant to use large spaces. Thus while the mosques of *al-Aqmar* and salih* talai* (Pl. II) both have courtyards their prayer halls are simple and unadorned, with only two rows of columns. In the latter mosque we find a facade* with an arcaded vestibule giving the mosque an entirely novel appearance.³

A characteristic development at this period was the building of a mosque in combination with the tomb of its founder. One of the most picturesque of these, the mosque of aljuyushi*, (Pl. III) built in 1085, consists of a domed square flanked by two bays and preceded by a vestibule opening into a small courtyard through a triple arcade. The space around the domed *mihrab** bay is covered by cross-vaults. Two rooms adjoin the courtyard on either side. Over the gate on the main axis is a towering minaret capped by a small dome.⁴ The whole composition is new in conception and distinctively Egyptian. Some of

1 Creswell, K.A.C., *MAE I* pp. 36-64.

2*Ibid.*, pp. 65-106.

3*Ibid.*, pp. 241-45 (al-Akmar); pp. 275-88 (Salih altalai*):

4*Ibid.*, pp. 155-160; shafei*, F., 'The mashhad* al juyushi*. Archaeological Notes and Studies', *Studies in Islamic Art and Architecture in Honor of Professor K.A.C. Creswell*, Cairo, 1965, pp. 237-52.

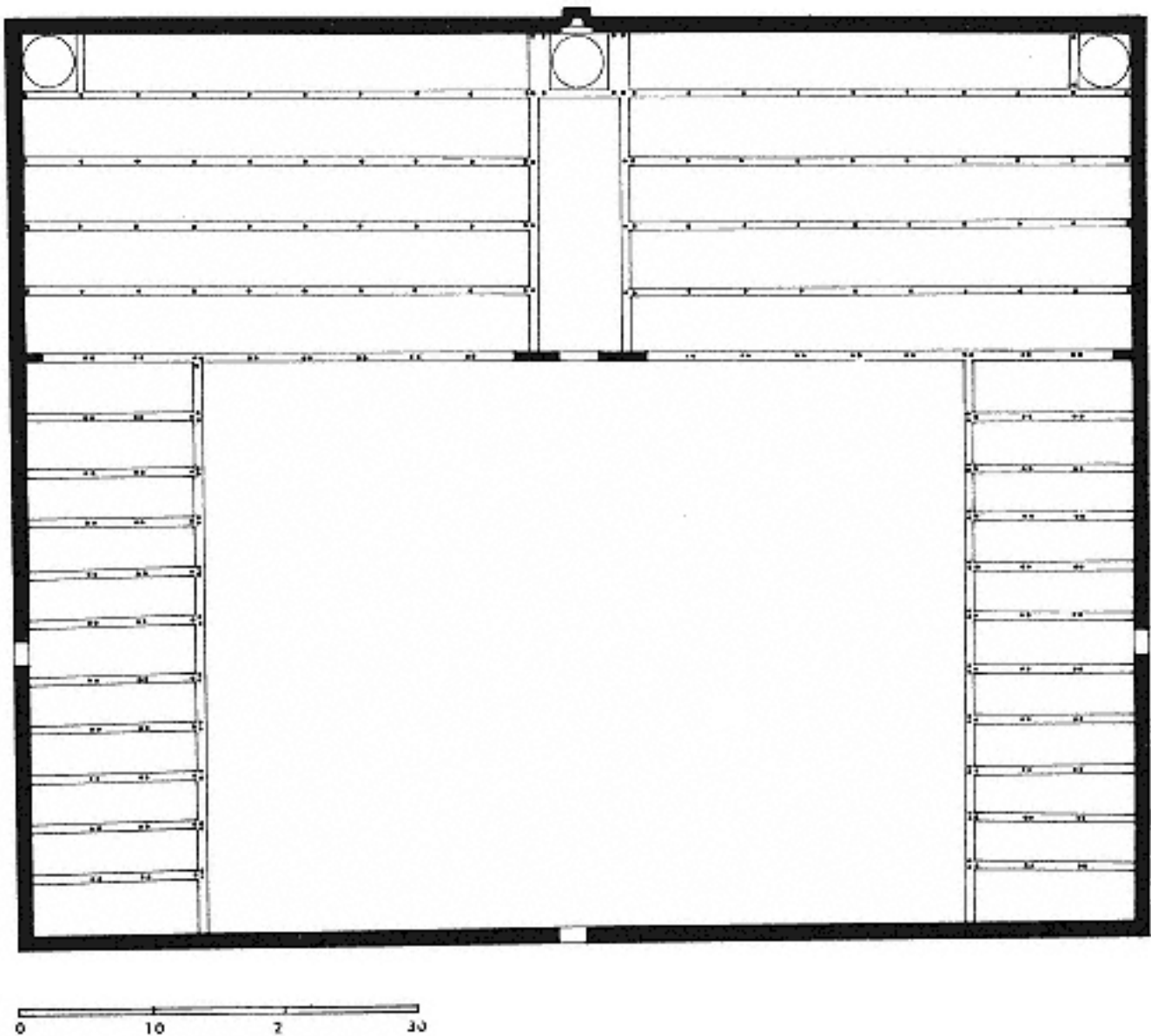


Fig. 1.
Al-Azhar, Cairo, the original plan (Cresswell).

the forms found later in Mamluk mosque architecture can already be identified in this small mosque.

The Mosque in North Africa after the Ninth Century

In *ifriqiya* * and the Maghreb, mosque design in its main features followed the earliest traditions, favouring a pillared hall with rather indefinite spatial limits, an arcaded courtyard, and a square minaret tower.

Among the later mosques of North Africa are the Great Mosque at Sfax in Tunisia,⁵ founded in the ninth century but enlarged at later periods; the Almoravid Great Mosque of Algiers (Pl. IV, Fig. 2),⁶ probably of the eleventh century; the Great Mosque at Tlemcen,⁷ also completed under the Almoravids, in 1136 and the *qarawiyyin** mosque in

5 Marçais, G., Golvin, L., *La Grande Mosquée de Sfax*, Tunis, 1960.

6 Marçais, G., "La Grande Mosquée d'Algier. L'âme des mosquées", *Feuillet d'El Djezair*, 1942, pp. 33-43.

7 Marçais, G., *Les Monuments Arabes de Tlemcen*, Paris, 1903.

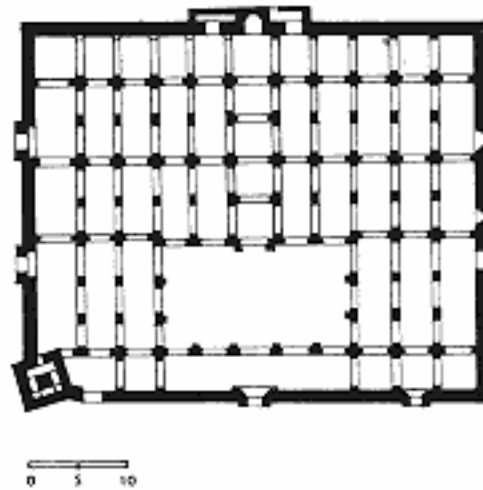


Fig. 2.
The Great Mosque, Algiers, the plan (Marçais)

Fez (Fig. 3), first built in the ninth century and brought after several reconstructions to its final state during the first half of the twelfth century.

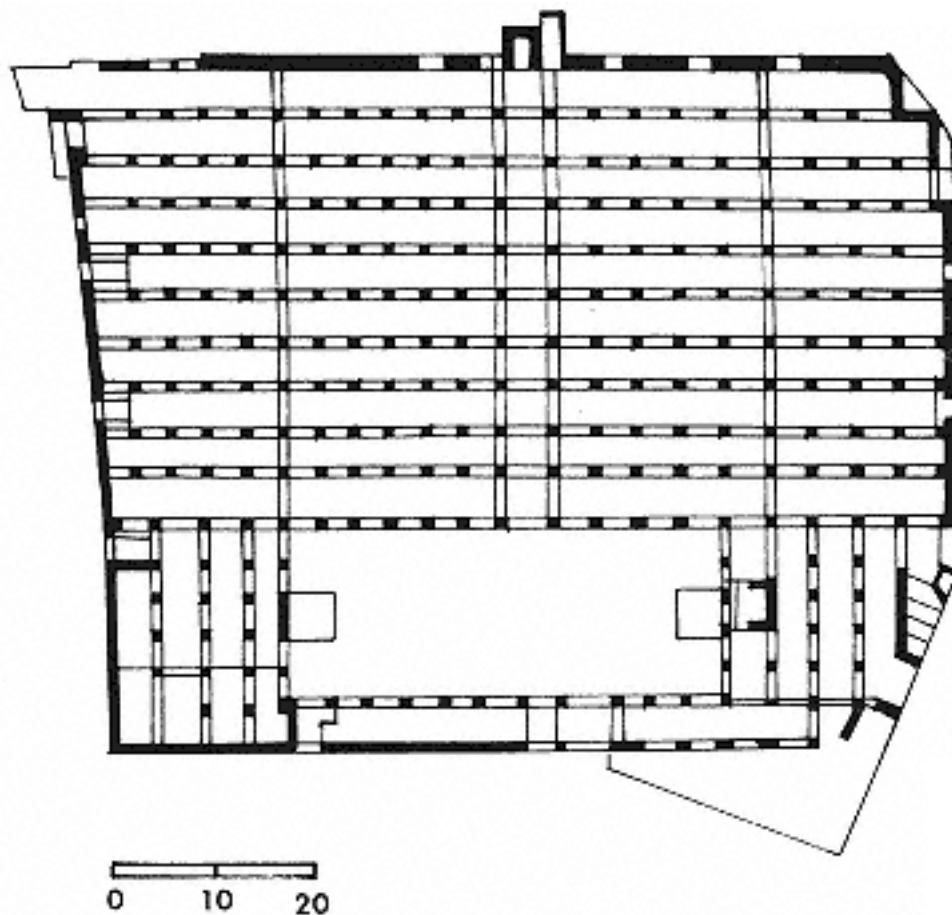


Fig. 3.
The mosque al-Qarawiyyin *, Fas* the plan, (Marçais).

Special mention must be made of the Almohad structures, such as the mosque at Tinmal⁹ (Pl. V, Fig. 4) and the Great Mosque of *Qutubiyya* at Marrakesh¹⁰ (Pl. VI), both built

8 Terrasse, H., "La Mosquée d'Al-Qarawiyin à Fez et l'Art des Almoravides", *Ars Orientalis II*, 1957, pp. 135-47.

9 Basset, E., Terrasse, H., "Tinmal, Sanctuaires et Forteresse almohades", *Hesperis*, 1924, pp. 9-91.

10 *Ibid.*, pp. 84ff.

[< previous page](#)

page_3

[next page >](#)

in the twelfth century by Amir abd * almumin*; the mosque at mansurah* near Tlemcen (Fig. 5) erected in 1303, with its large dome over the *mihrab** indicating the *maqsura** as in the oriental examples; and finally the Sultan hasan* Mosque at Rabat11, built in 1199.

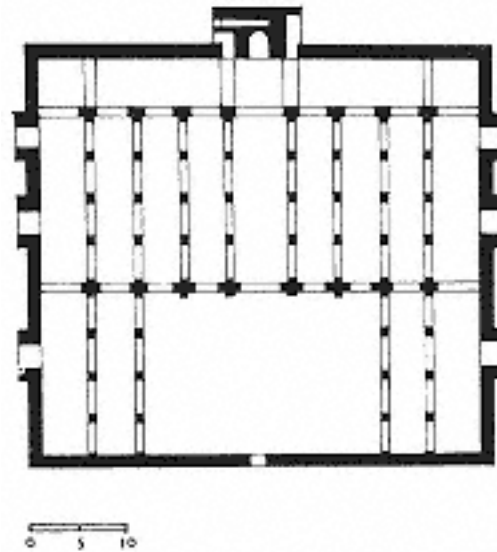


Fig. 4.
The mosque, Tinmal, the plan (Marçais).

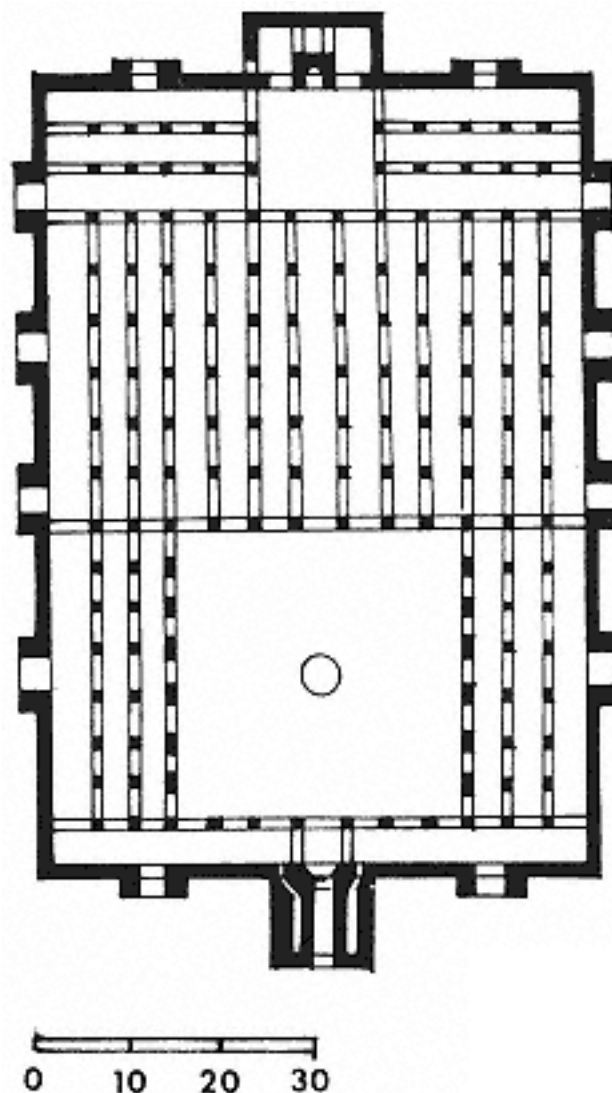


Fig. 5.
The mosque, Mansurah*, the plan (Marçais).

Certain stylistic characteristics of these mosques serve to set them apart as a group. Their courtyards tend to be decreased in area and in place of the columns used earlier there are now heavy piers, reduced in height and connected by horseshoe arches to carry a flat wooden roof. (In later rebuilt examples, however, some of these have been vaulted). They generally have a large aisle parallel to the *mihrab** wall. Often there is a small decorative dome over the *mihrab**, and occasionally also over the entrance bay and at the corners on the *mihrab** side. In most cases the roofs are tiled. Their square tower minarets commonly have two or more storeys and are topped by small domes. A typical surface decoration is the network of interlaced arches in the minaret of the *Qutubiyya* mosque and that of hasan* at Rabat.

The building material of these mosques was usually brick. Stucco decoration played an important part in the interiors, equalled only by that of the safawids* of Iran. The distinc-

11 Caillé, J., *La Mosquée de Hassan à Rabat*, Paris, 1954.

[< previous page](#)

page_4

[next page >](#)

tive characteristics of this decoration are its intersecting arch designs, and the superlative use over domes and vaulted arches of minutely detailed *muqarnas* ornaments.

In some cases the great North African mosques are embedded in the city fabric around them and do not exhibit a conspicuous external architecture. The Great Mosque at Fez is a noteworthy example. The tradition was continued, with minor variations and little structural innovation, by later North African mosques.¹²

Mamluk Architecture in Egypt

The Fatimid tradition was continued by the succeeding Ayyubid period.¹³ But it remained for the Mamluks to achieve an essentially Egyptian monumentality when, after the thirteenth century, they became the greatest power in the Eastern Mediterranean. Their contacts with the East on one hand and with Europe on the other seem to have endowed them with an unusual energy in formal manipulation.

The mosque of Sultan Baybars, one of the greatest of Mamluk rulers, built in 1267-69, carries on the early Arab mosque tradition and combines it with certain features of the Fatimid period and themes derived from the east Islamic domain.¹⁴ Organized within a tight symmetry, this mosque has a colonnaded prayer hall and an arcaded courtyard. The single domed area before the *mihrab* * is here a new motif. It covers several bays and breaks the rhythm of the bays, and was first introduced during the saljuq* period. (Fig. 6) The emphasis on axuality in the composition may further be attributed to Iranian influence. The three-aisled hall leading from the court to the central domed area was long established in Syrian practice, while the projecting gateways are borrowed from the local Fatimid tradition.

During the growth period of Mamluk architecture, the mosque became part of a larger complex that in many instances included a *madrasa* or *khanqah** and the tomb of the founder, both given the same formal importance as the mosque itself. The mosque-*madrasa* of Sultan hasan*, built in 1356-63, is the most renowned example of this combination, and here the mosque itself is reduced to a single *iwan** of the *madrasa*. In most instances this *qibla iwan**, or *liwan** served as a prayer hall. Sometimes it was divided into aisles by rows of columns as in the Madrasa of qalaun* (1284-85) (Fig. 7), or as in the Madrasa of barquq* (1384-86). Sometimes it was enlarged at the sides as in the *khanqah** of Baybars al-Gashankir (1306-07), or in the Madrasa of Il-Malak (1319).

In all these structures the notion of the mosque as an independent building, or at any rate as independent space was discarded. By incorporating it in the *madrasa* or *khanqah** or adding a mausoleum to the whole, Egyptian architects of this period devised ingenious ways of manipulating space which give the Mamluk style its unique charm.¹⁵

The traditional hypostyle hall, however, went on to be used in a few mosques, such as those of altunbogha* almaridani* (1338-1340) (pl. VII), or almuayyad* (1415-20) (Pl. VIII). In some later examples, moreover, such as the mosque of Barsbay, built in 1437, the earlier Fatimid style was taken as a model.

¹² For a general survey and bibliography see, Marçais, G., *L'Art Musulman d'Occident*, Paris, 1954.

¹³ For the Ayyubid Period: Creswell, K.A.C., *MAE II*, pp. 1-103.

¹⁴ Creswell, *MAE II*, pp. 155-172.

¹⁵ For a general Survey of Egyptian mosques see, Hautecoeur, L. and Wiet, G., *Les Mosquées du Caire*, 2 vols., Paris, 1962.

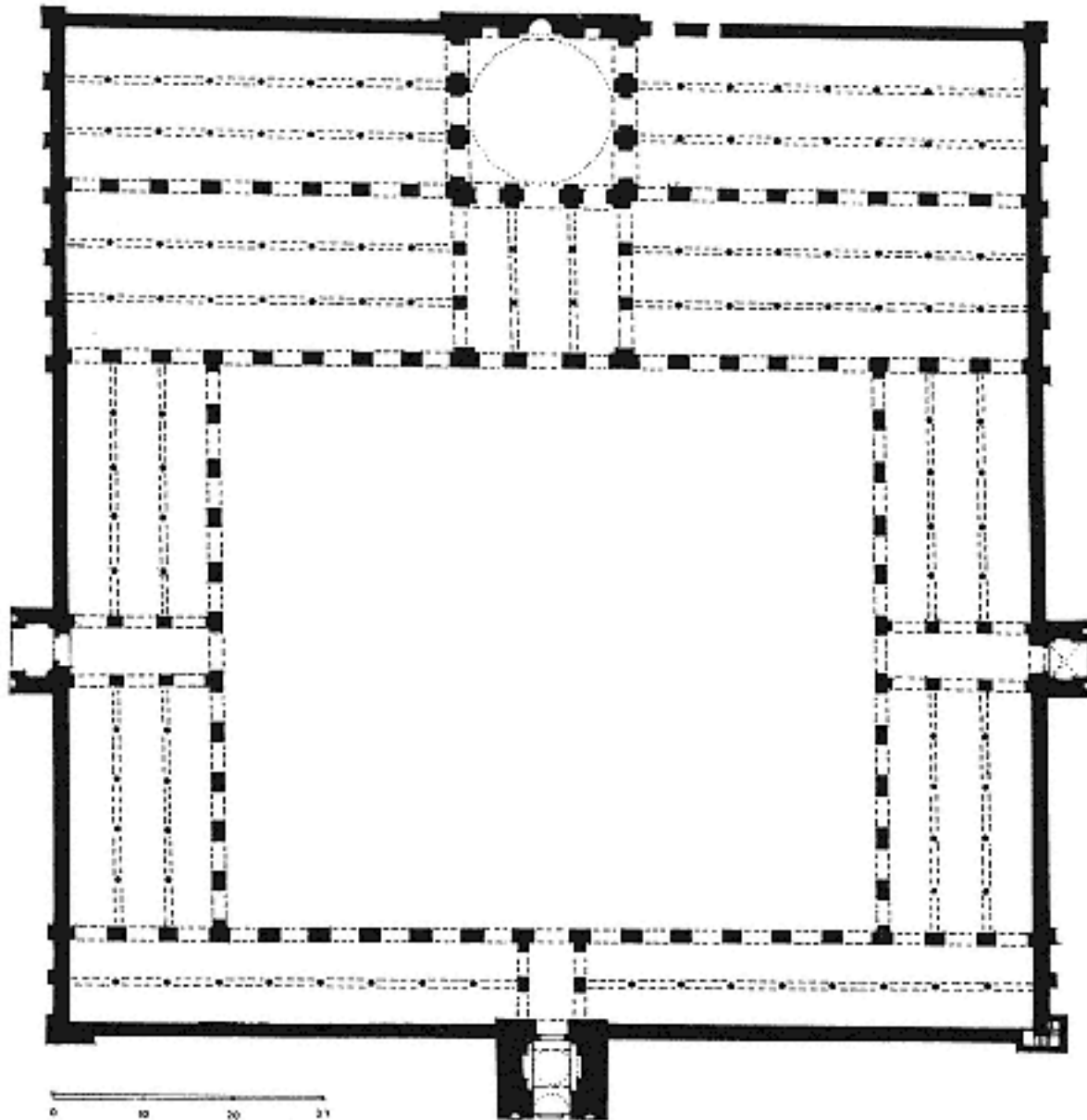


Fig. 6.
The Mosque of Baybars, Cairo, the plan (Cresswell).

A significant feature of the Mamluk period was the use of stucco in the decoration both of interiors and exteriors. The wooden domes were plastered with stucco and carved. Cornices and niches were mostly decorated with stucco *muqarnas*. Marble and coloured stone were also used extensively. It was in later Mamluk architecture that the fullest development occurred of bi-coloured stripe work (*ablaq* *) marble panelling, and marble incrustation. Woodwork also contributed to the decorative glories of the period. The flat wooden ceilings of the large *liwan**, the wooden inscription frieze, and finally the decorative wooden screen with geometrical designs all impart a strongly characteristic appearance to the buildings of the Mamluk period. The abundant use of stucco and wood had much to do with the climate, the low humidity of which helped to keep these materials stable.

A final word may be said about the minarets, the element of fantasy in Egyptian Islamic architecture. Constructed essentially of stone the earliest characteristic Mamluk example was built in the time of qalaun* in the thirteen century. They were made up of differently shaped sections in successive registers, square and circular in plan, separated by highly stylized balconies and decorated with blind arcades, interlacing surface patterns, open

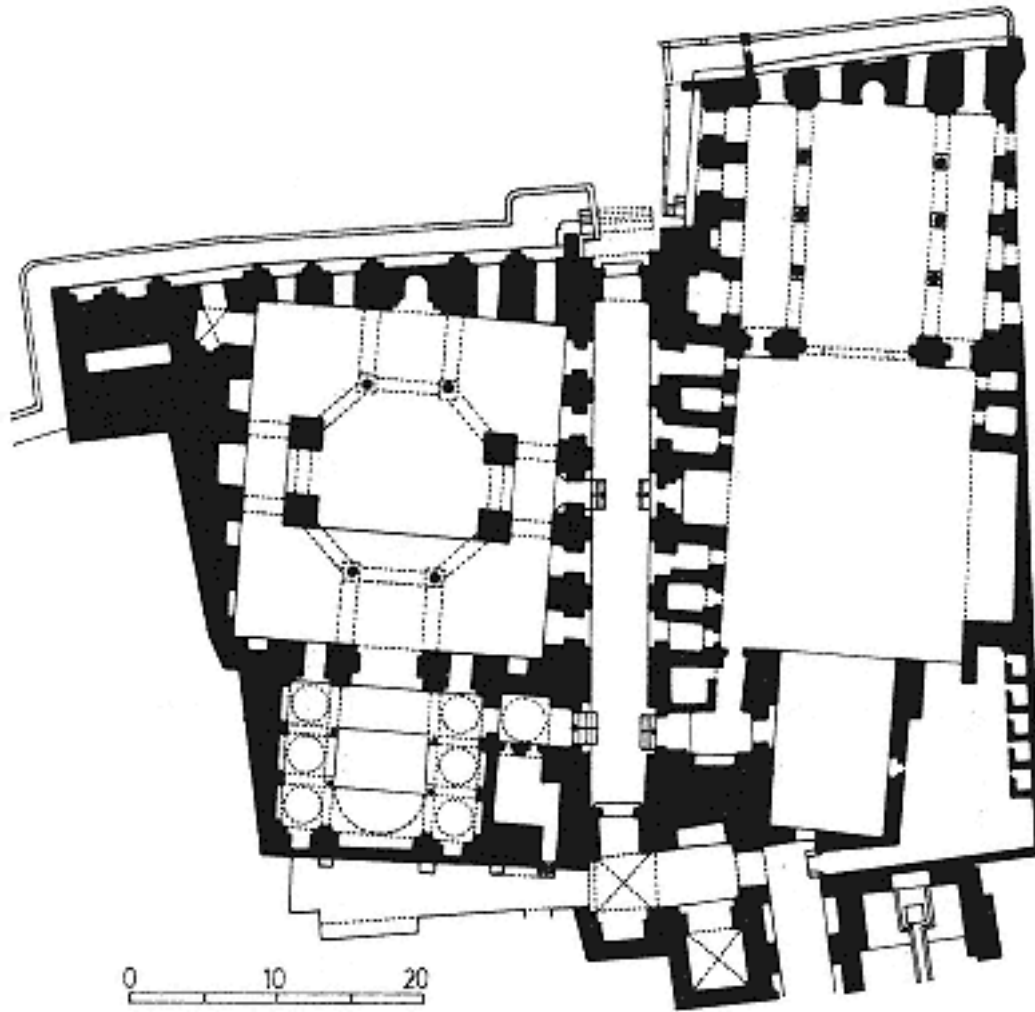
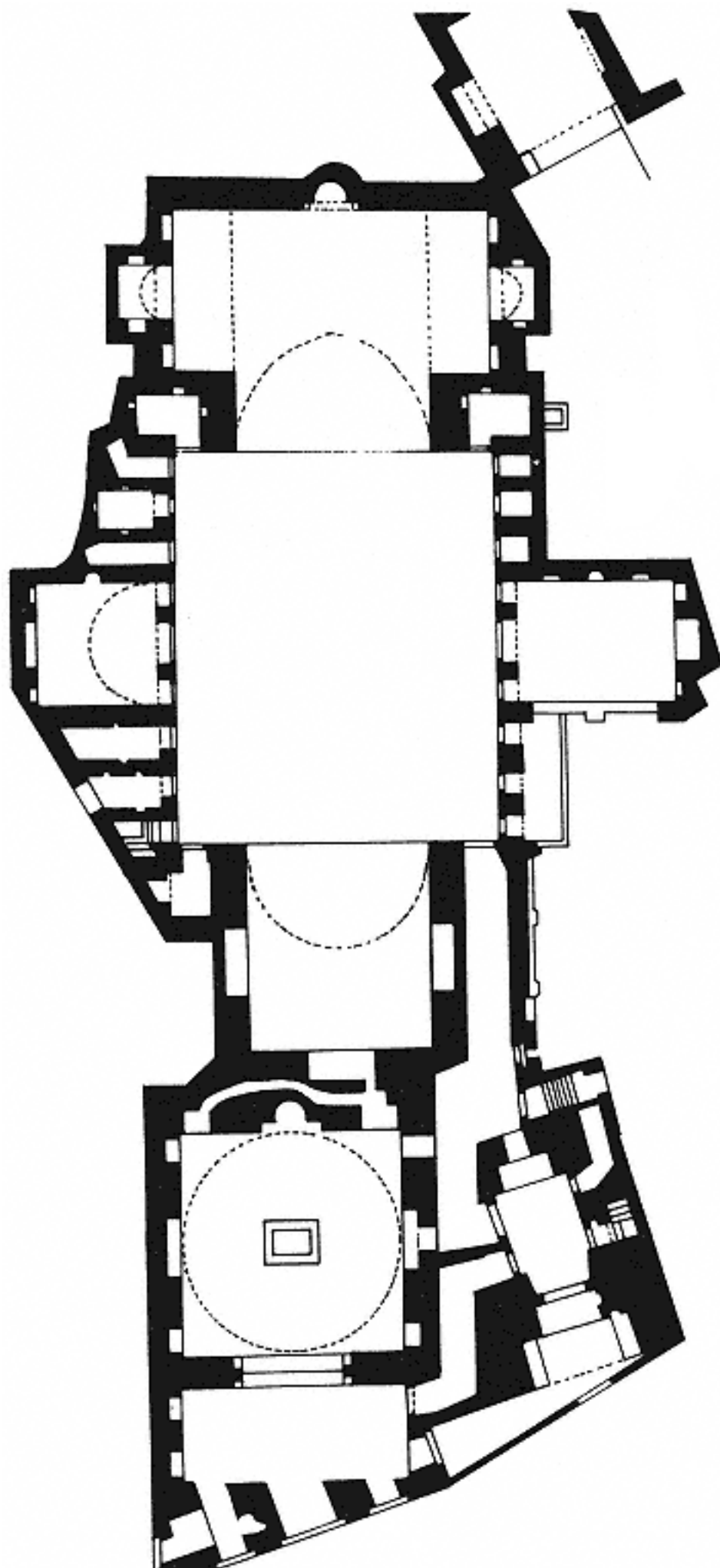


Fig. 7.
Madrasa-Mosque of Qalaun *, Cairo, the plan (Cresswell).

galleries, large rosettes in relief, carved with various techniques, the whole crowned with a decorative dome. They thus consciously symbolized a power that was more political than religious.

Mosque Architecture in Areas of Irano-Turkish Culture (Iran, Central Asia, and Afghanistan)

Before the saljuq* conquest of Iran, from the late ninth century onwards, the Iranian region was dominated in Central and Western Iran by the buyids*, in Eastern Iran and Transoxiana first by the tahirids* and later by the saffawids* and samanids*. They created independent political centres and economic incentives in which an iranized Islam found an atmosphere suitable for its development. These Iranian dynasties were instrumental in adapting the Islamic faith to the age-old Iranian cultural tradition. When in the early eleventh century the Turks assumed the political leadership of Muslim lands throughout eastern Islam, the stage was set for regional development. First the Ghaznawids and then the saljuqs* provided an atmosphere favourable to ambitious visions of monumental art. Iran, Mesopotamia, and Central Asia are regions where architecture was dominated above all by earthen materials, and it was there under the saljuqs* that brick building reached its highest level of achievement. Its course of development was like that of stone building in medieval Europe. Structural forms, or planning elements like the combination of the *iwan** with a courtyard, or building types like the tomb towers evidently followed an-



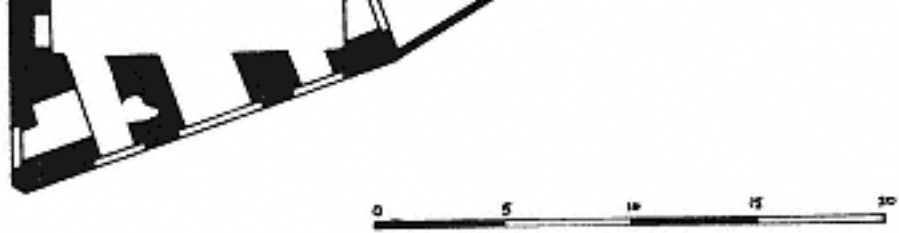


Fig. 8.
Khanqah * and Mausoleum of Sultan Baybars al-Jashankir*, Cairo, the plan (Cresswell).

[< previous page](#)

page_8

[next page >](#)

cient traditions. The ready availability of mud brick or baked brick permitted the rapid assembly of large-sized structures. The material had enough strength and yet the flexibility needed for great size and boldness in construction. At the same time its potentiality for decoration was almost unlimited, from simple geometric relief to intricate patterns of glazed and coloured brick, and many other terracotta techniques. Thus advanced methods of combining vaults and domes in brick, together with an extraordinary richness in the colour and texture of wall surface characterize the architecture of Iran and the adjacent territories from the eleventh century onwards.¹⁶

The Iranian mosque, as A. Pope observes, is a building complex which, like some North African mosques, merges with its surroundings. It is not conceived as a building turned outwards. Down to our own times almost all surviving mosques are assemblies of buildings of different periods, domed chambers, pillared halls, varying in size. Yet most, of every type, have one major element at their core—the courtyard with four *iwans* *. This key feature may be said to represent the combination of interior and exterior space. The mosque lives by its courtyard. It is closed to its external environment but like a European *piazza* serves those which adjoin it internally.

In the first centuries of Islam the hypostyle hall seems to have been the commonly used mosque form. Also in use, however, as A. Godard has shown, were mosques consisting of a single *iwan**, a domed chamber with *iwan**, or a simple domed chamber. According to Godard the gulpaygan* and Zawara mosques were originally of simple domed kiosk type, while that at Niriz was a single *iwan**.¹⁷ This was a common case in all the lands conquered by the Muslim armies. Local buildings improvised as mosques were used side by side with mosques of Arab type. Any larger and more representative mosque, however, such as the first Masjid-i juma* at Isfahan*, would be of Arab type.

The Masjid-i-juma* of Isfahan, as rebuilt during the reign of Malik shah* and after, is perhaps the most distinguished example of a mosque called "Iranian" (Pl. IX; Fig. 9). Its



Fig. 9.
Masjid-i Juma*, Isfahan*,
the possible
reconstruction of the
Saljuq* period.

¹⁶ For a general Survey and Bibliography of Iran and Central Asian Architecture see, Diez E., *Persien, Islamische Baukunst in Khurasan*, Hagen, 1923; Sassipkin, B., *Architekturnia Pamiatniki Srednei Asii*, Moscow, 1928; Cohn-Wiener, E., *Turan, islamische Baukunst in Mittelasien*, Berlin, 1930; Pope, A.U. (Ed.), *Survey of Persian Art*, vol. II, Oxford, 1939; vol. IV, Oxford, 1938; Godard, A., *The Art of Iran*, London, 1965; Albaum, L.I., Brentjes, B., *Herren der Steppe, zur Geschichte und Kultur mittelasiatischer Völker in islamischer Zeit*, Berlin, 1976.

¹⁷ Godard, A., "Les anciennes Mosquées de l'Iran", *Ather-e Iran*, vol. 1/2, pp. 187-21.

core is the courtyard with four *iwans**, the scheme which apparently became generalized during the saljuq* period. The great court itself, 196×230 feet, is surrounded by arcades of two storeys with the four iwans on its main axes. At the rear of the *qibla iwan**, which is decorated with colossal *muqarnas* elements, there is the famous domed chamber built by the Vizir nizam* al-Mulk, obviously as the *maqsura** of the sultan himself. On the other side of the courtyard is the domed chamber of the same period, dated 1088, which may have served as a monumental entrance hall. A variety of supplementary halls of different periods were used for prayer and teaching activities.¹⁸

Thus a domed chamber before the *mihrab** approached by four-*iwan** courtyard has been since that time the principal model for all the major mosques of Iran and Central Asia. The *Masjid-i juma** at gulpaygan* (1113-32)¹⁹ (Fig. 10), the *Masjid-i juma** at qazwin* (1160), the *Masjid-i juma** at Zawara (1135-36),²⁰ and the *Masjid-i juma** at Ardistan (1158-60)²¹ (Pl. X) all have similar plans based on it. Their architecture has a serene geometry expressive with absolute directness both of structure and of material.

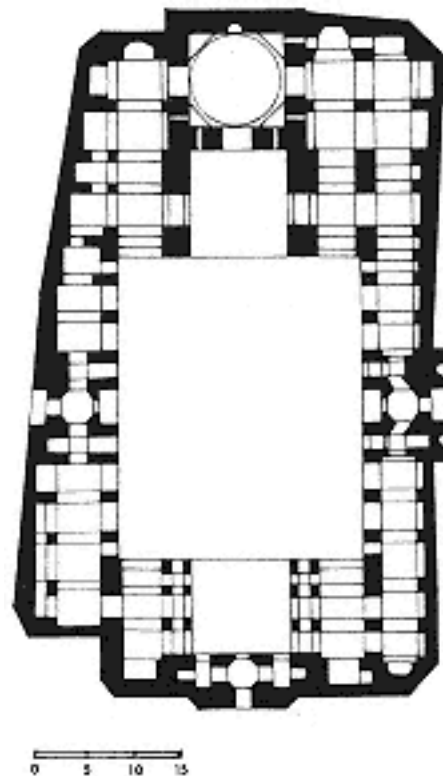


Fig. 10.
Masjid-i Jami*, gulpaygan*,
the plan (Survey, Godard).

With minor variations this saljuq* tradition was followed by the mosques of the ilkhanid* period. Here the best-preserved example of the four-*iwan** type is the *Masjid-i juma** at Waramin, (Pl. XI) built in 1322.²² Typical of the period, however, and from now on were

18 Galdieri, E., *Isfahan, Masjid-i djuma**, Roma, vol. I, 1972; vol. II, 1973; Schroeder, E., in *Suvey II*, pp. 954 ff; Gabriel, A., "Le Masdjid-i djuma* d'Isfahan", *Ars Islamica*, vol. II, Part. I, 1935, pp. 7-44; Godard, A., "Historique du Masdjid-e djuma* d'Isfahan", *athare* iran**, Vol. I, Part II, Paris, 1936, pp. 213-282.

19 According to Godard, it was originally a domed-kiosque mosque. The four-iwan courtyard is 19th century.

20 Godard, A., 'ardistan* et zaware*', *Athar-e Iran*, vol. I, part II, pp. 285-309. See also the same author's article, note 75.

21 *Survey II* (1936), pp. 949-54.

22 *Ibid.*, pp. 1093-96.

the minarets symmetrically disposed over gateway or *iiwan**, instead of the single towering minarets of saljuq* mosques. Those of the small mosque at Astarjan, built in 1315,²³ and those of the *Masjid-i jami** at Yazd (1324) are representative. The minarets diminished in size as they became incorporated in the general bulk of the mosque and entirely lost their importance in later Iranian architecture. In Central Asia, however, the minaret as imposing tower continued throughout the later periods.

From the ilkhanid* period the *Masjid-i Ali Shah* at Tabriz (Pl. XII) must be specially mentioned. It is a gigantic example of the archaic *iwan** type. Built in 1312-22, it is now in ruins. The main sanctuary is a single *iwan** of 100 × 158 feet. On either side were two minarets about 200 feet high, and the vault at the apex was 150 feet high. This enormous rectangular hall faced a courtyard of 750 × 937 feet enclosed by an arcade. An account of its decoration shows it to have been characteristic of the Mongol age: "The interior of the *iwan*, its façade, and the arcades were overlaid with tiles and faience mosaic. The *mihrab** had a revetment of gold-lustre faience, and framing columns of bronze inlaid with silver. The sanctuary was illuminated with lamps of silver and enamelled glass. The courtyard was paved with marble slabs, while the stonevaulted arcades had twin columns of alabaster in their facades. The door were of bronze or single slabs of alabaster."²⁴

Another form of mosque which seems to be common in Turco-Iranian lands is the *musalla**. It is a large open prayer space, sometimes walled, with a *maqsura** on the *qibla* side. Such mosques were used for the great religious feasts, *idalfitr** and *idaladha**. The *maqsura** consisted of a single *iwan**, either with two adjacent domed chambers as in the *musalla** at Mashhad; or a single domed chamber preceded by the *iwan** as in the *musalla** at Turuk; or a single domed chamber with adjacent spaces on either side, as in the *musalla** at Talhatan baba* (Fig. 11).²⁵

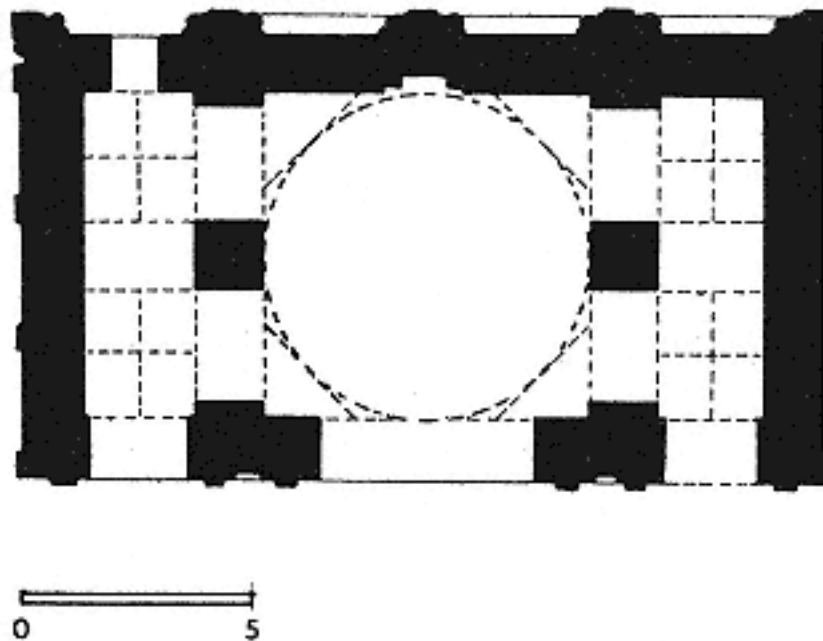


Fig. 11.

Musalla* of Talhatan Baba*, near old Marw, the plan (Pugchenkova).

²³*Ibid.*, pp. 1056-61.

²⁴*Survey II*, pp. 1079 f.

²⁵ For the interesting example of Central Asian *musalla**, the so-called Talhatan Baba near Marw, see, Pugatchenkova, G.A., *Puti Razvitiia Architektura Yuznogo Tukmenistana Pori Rabovlediniia i Feodalizma*, Moscow, 1958, pp. 248-256.

With the rise of the Timurids the centre of political power moved to Central Asia, Khorasan and part of Afghanistan, with new cultural centres at Samarkand, Bukhara, Herat, and Balkh. Here, as in Egypt in the same period, the large *madrasa* absorbed the function of the mosque, so that there are fewer of monumental quality. Among these, however, the mosque of *bibi * Khanum* at Samarkand, built in 1398-1404, is perhaps the most conspicuous example from Timur's reign.

The plan of this mosque (Pl. XII) is that of the familiar four-*iwān** courtyard. Behind the *qibla iwan** and each of the two side *iwāns** is a square domed chamber. The fourth *iwān** constitutes an entrance hall, with a monumental gateway about 130 feet high enhanced and defined by two minarets. The *iwāns** and domed chambers were connected with one another by immense arcaded halls also roofed with domes, so that the whole complex assumed the form of a regular rectangle, at each corner of which a minaret was erected. As was usual with princely buildings, various techniques of decoration with rich materials were employed lavishly, marble revetments, stone carving, faience mosaic, glazed brick, and stucco.²⁶

Another Timurid mosque worthy of mention is that of *Gawhar shad** (Pl. XIV; Fig. 12), the wife of *timurs* son shah* Rukh*, built in Mashhad on the four-*iwān** courtyard scheme. Now enclosed within the greatest shrine of Iran, that of the *imam* alrida**, it still preserves one of the finest displays of faience mosaic decoration from the Timurid period. The use of colour here symbolizes and puts on show the ceremonial approach to architecture which seems characteristic of the shii* view of life.

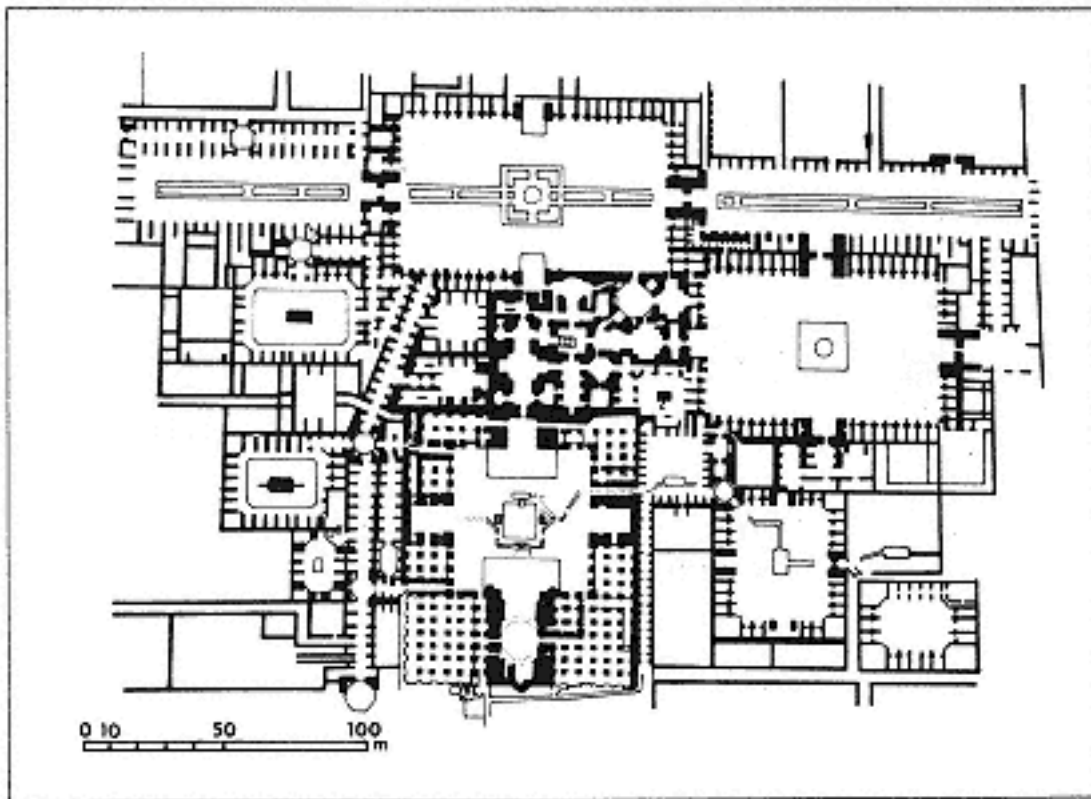


Fig. 12.

Shrine of *imam* alrida** and the mosque of *Gawhar shad**, Mashhad, the plan.

26 Ratiya, Sh. E., *Mechet' Bibi Khanum*, Moscow, 1950.

From the fifteenth century we have a mosque of distinctive design and exceptional decoration which must not be passed over. In the Blue Mosque at Tabriz* (Pl. XV; Fig. 13) built in 1465 during the reign of Jahan* Shah* of the Qara Qoyunlu dynasty, the domed sanctuary is cruciform in plan and preceded by a large domed chamber which in turn is surrounded by an ambulatory enhanced by a parade of domes. The influence of earlier Timurid buildings may be detected in this design. The surfaces are all enlivened by a decoration of faience mosaic in calligraphy and geometric tracery dominated by blue, turquoise, and white. The parts still standing bear witness to the perfection reached by the ceramic technique of that period.²⁷

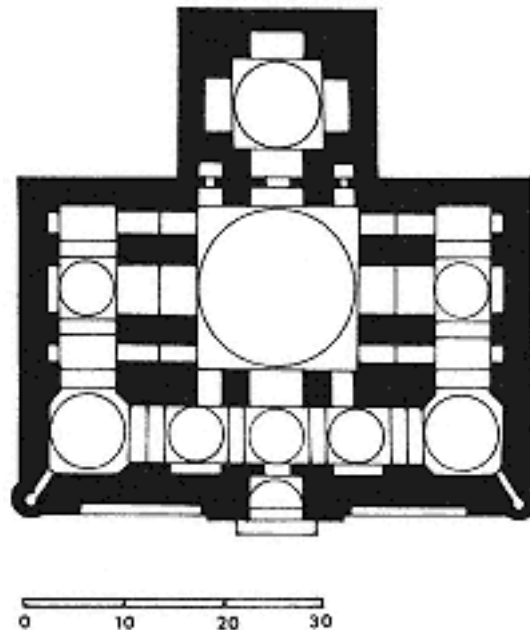


Fig. 13.
The Blue Mosque, Tabriz*, the plan (Survey, Pope).

A new period of monumental architecture was initiated in Iran by the Safavids*. Though the intrinsic quality of these mosques makes them of great artistic value, the period was not marked by any great novelties of plan. Like its Central Asian contemporaries, the Safavid* style merely replaced earlier tendencies to boldness of conception and vastness of size by refinement of finish and intricacy of design.

The *Masjid-i Shah** of Shah Abbas* (Pl. XVI; Fig. 14), in the great *Meidan* complex of Isfahan, which was completed after 1628, represents the culmination of the four-*iwan** courtyard plan. The mosque is placed obliquely to the *Meidan* axis, with a very ingenious entrance arrangement.²⁸

For memorial mosques the single-domed building continued in use. The rightly celebrated Shaikh Lutfallah* Mosque in the Isfahan *Meidan* complex, built in 1603-18, is a handsome example.

It may be concluded that in mosque building Iran and Central Asia represent the most homogeneous style. After the Saljuq* period experiment concentrated on elegance and on

²⁷Survey II, pp. 1091-93.

²⁸Survey II, pp. 00.

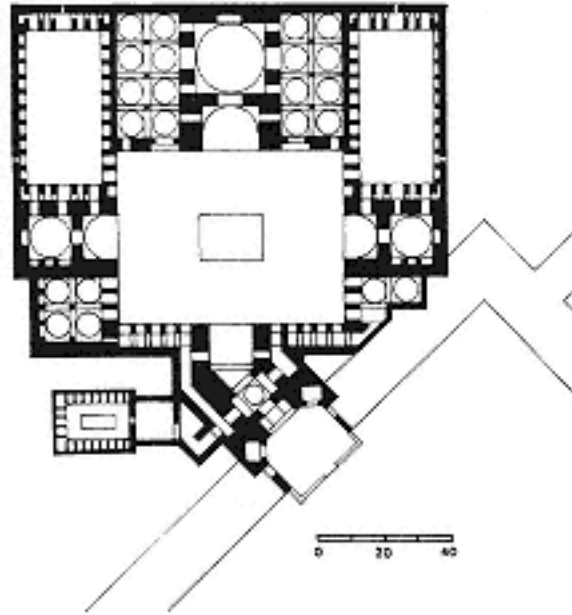


Fig. 14.
Masjid-i Shah *, Isfahan*, the plan (Survey, Pope).

technical achievement. Monumental mosques were designed without change on a traditional plan and adhered almost obsessively to the time-honoured *iwan** formula. By ceramic arts of all kinds, however, the use of stucco in which Iranian masters excelled, and by their ingenuity and advanced techniques in brick vaulting they were enabled to overcome the monotony of plan which was fundamental to their architecture.

Mosques in the Indian Subcontinent

The Arabs reached Sind at the beginning of the eighth century, but the Islamic conquest of India started with Ghaznawid raids and it was not till the end of the second half of the twelfth century that muhammad* ghuri* established the first Muslim state on Indian soil. Before the rise of baburs* Turco-Mongol ("Mogul") Empire in the fifteenth century there was a succession of Turkish and Afghan dynasties at Delhi and independent states eventually came into being in the northern and central parts of the Indian Sub-Continent.

In its variety, the richness of its materials, its inventiveness in decoration, and the quality of its execution Indian architecture in the Muslim period is an incomparable expression of artistic imagination. But owing to its syncretism it must be acknowledged as the least Islamic of the great Muslim architectural styles. To such an extent were its regional developments always influenced by local traditions.

The first mosque at Delhi, the *Quwwat alislam**, dated 1191-99, was built according to the dominant mosque plan of that period, in use in countries stretching from Syria to India, then under the rule of Turkish dynasties. This had an arcaded courtyard of which the *qibla* side formed the prayer hall (*liwan**), while the exterior was dominated by a central dome over the mihrab bay. Its minaret, the famous *qutb** *minar**, followed the saljuq* formula of independent minaret towers. The techniques of construction, however, and the architectural detail were predominantly Indian.²⁹

²⁹ Brown, P., *Indian Architecture (Islamic Period)*, Bombay, 1968 (Fifth Ed.), pp. 9-12.

The mosque *Arhai-din Ka-jhompra* at Ajmir, from the end of the twelfth century, was similar in plan but larger. The decoration of the façade of its prayer hall (here called *maqsura* *), its marble mihrab, its carved columns, and its frail minarets all show how the developing Muslim style was being penetrated by the Indian tradition.³⁰ These first mosques no doubt set the example for those that followed but their influence in most cases must have been limited to the general liturgical level.

During the *khalji** period (1290-1320) the Indian version of the monumental gateway was introduced with the addition of the so-called *alai** *darwaza** to the mosque of *Quwwat alislam**.³¹ The mosque, or *jamaatkhana**, of *nizamaldin** *awliya** at Delhi (1320) (Pl. XVII) is an early example of *masjid* without a courtyard, and thus constitutes a specific contribution of the Khalji period to the typology of Indian mosque architecture.³² It is a rectangular building divided into three bays, each surmounted by a dome, the central bay being larger.

In the following *tughluq** period (1320-1412) most mosques adopted the open courtyard scheme. But the *khirqi** *Masjid*, for instance, near Delhi (c. 1380) (Fig. 15), with its interior courtyards, is already indicative of the ingenuity of local architects in devising original arrangements of space, a characteristic of Indian Muslim architecture.

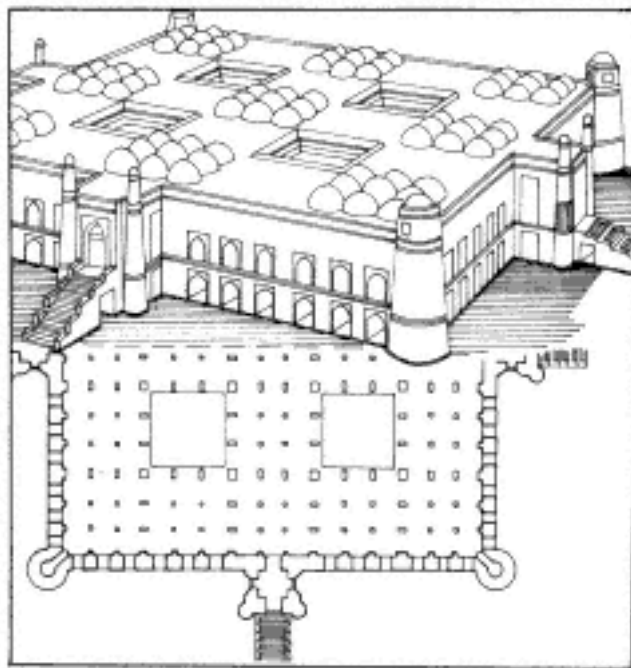


Fig. 15
Khirqi* Masjid, near Delhi, Axonometrical view and plan
(from Brown).

*tughluq** mosques, whether of the open courtyard type like the *begampuri** mosque near Delhi (c. 1370) or of the closed type, have a massive appearance. With their projecting gateways, walls tapered downwards, corner towers, and sparse openings, they have a virile but archaic plasticity. They are also marked by a reluctant use of decoration or rich

³⁰*Ibid.*, pp. 12f.

³¹*Ibid.*, pp. 16-18.

³² *jamaatkhana** is more than a mosque; it was a congregation hall for the followers of Ismail'i sects such as Khojas and Bohras; the large halls where the Sufis used to meet and lived together were also called *jamaatkhana**.

materials, which no doubt resulted from the strongly military character of the period. The tughluq * buildings did, however, like their khalji* predecessors, introduce many features of the coming Muslim style, including its emphasis on systems of arches.

In the great differentiation of forms which became noticeable among the regional styles of the Pre-Mughal period, these arcuate developments spread under tughluq* influence to many regions, among them malwa* and Jawnpur in Central India. The *jami* Masjid* at Mandu is a vaulted prayer hall with a large courtyard (Pl. XVIII). At Jawnpur, the "Jawnpur style" is represented by the *Atala* mosque among others (Pl. XIX). Although built on the usual open courtyard plan, it has an extraordinarily imposing gateway before its prayer hall, with a central portal and posterns at the side.³³ This may be taken as a local interpretation of the facades of a great *musallas** in Central Asia.

The gujarat* region has some striking examples of mosque design considerably influenced by local tradition.³⁴ The treabeted roofing system enhanced by domes, central clerestories to give light to large pillared halls of Indian character, richly carved stone screens, and decorative themes of pre-Muslim origin all play an important part in the design of these buildings.

Among the best examples of an open courtyard mosque is the *jami* Masjid* of ahmadabad*, built in 1424 (Pl. XX; Fig. 16). The triple clerestory generates a lightness of aspect which is further emphasized by the open tracery work of stone screens.³⁵ Mosques without courtyard are to be found in many provincial styles. An early example is the *jami* Masjid* at Mangrol in gujarat*.³⁶

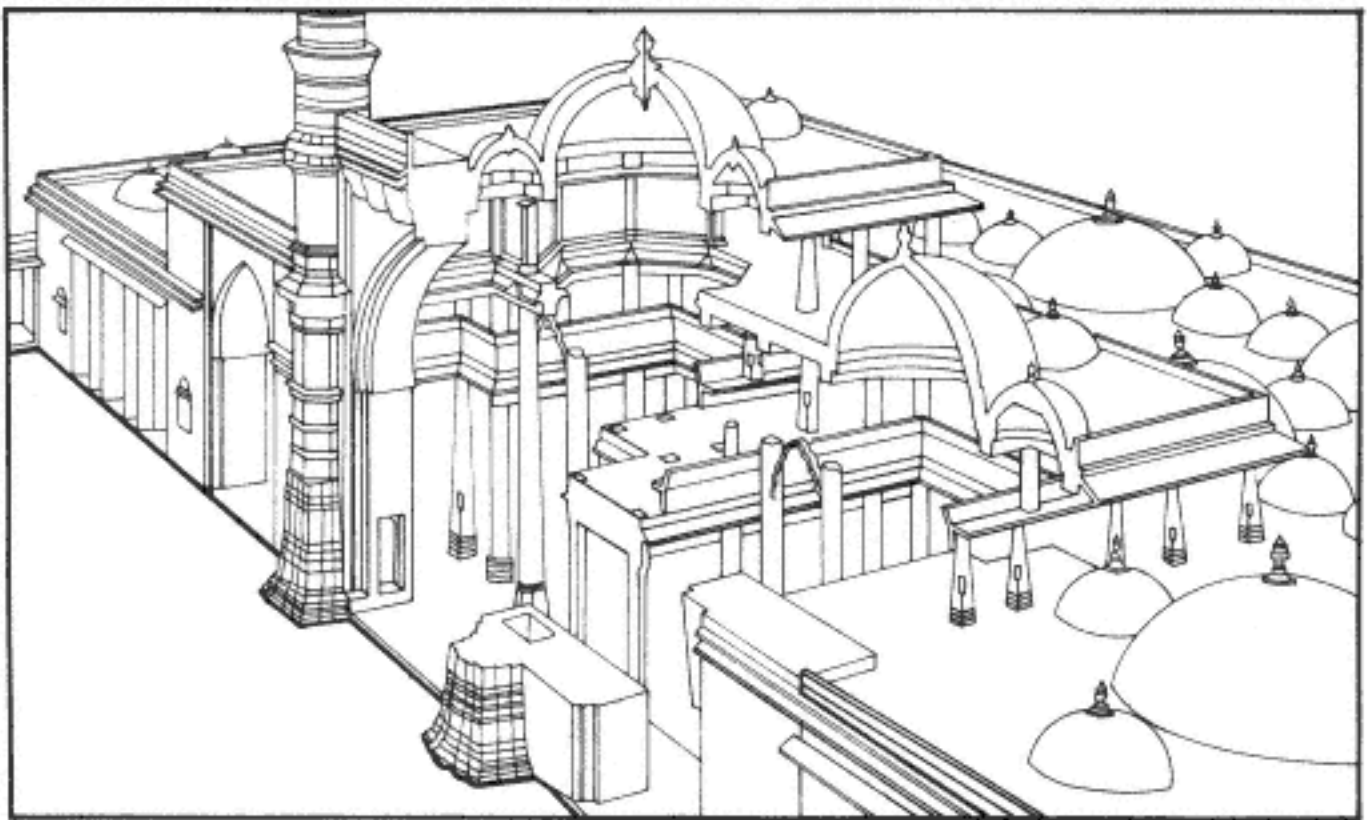


Fig. 16.
Jami* Masjid, Ahmadabad*, Axonometrical view (from Brown).

³³ Browne, *Op. cit.*, pp. 61 f.

³⁴*Ibid.*, p. 47.

³⁵*Ibid.* p. 50f.

³⁶ Desai, A., *Indo-Islamic Architecture*, New Delhi, 1970, p. 20.

It was during the reign of the mughals *, the Turco-Mongol dynasty founded in 1526 by Babur, that mosque architecture reached the maturity of a classical style. Preeminent among the great mosques representative of this phase of Indian Muslim architecture is the *jami* Masjid* at fathpur* sikri*, the residence of Akbar (Pl. XXI; Fig. 17). It consists of a prayer hall of a rather complicated design and a large courtyard surrounded by arcades and cells along its walls. The prayer hall has a central *maqsura** of square iwan type, domed, and flanked by oblong halls each with its separate *mihrab**. The domed mihrab bays are separated from the prayer halls as distinct rooms. Mention must be made of two structures within the precincts of the mosque, of which they emphasize both the formal spirituality and the political importance. The one is the southern gateway to the courtyard, the Buland Darwaza, which replaced the original gate. It is essentially a victory tower commemorating one of Akbar's military triumphs. The other is the resplendent white mausoleum of Shaikh Salim cishti*, a famous representative of the the cishti* Order.

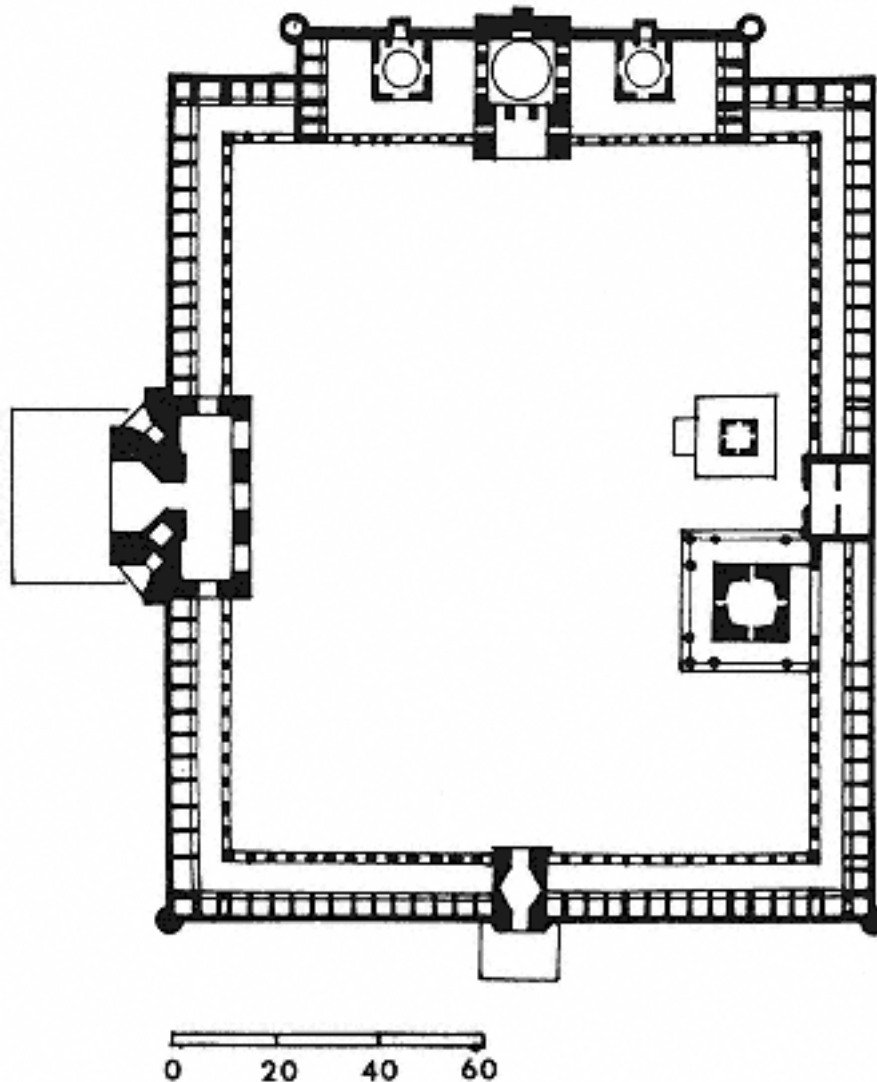


Fig. 17.
Jami* Masjid, Fathpur* Sikri*, the plan (Havell).

In its plan the *jami* Masjid* of Akbar is strongly reminiscent of its Central Asian origins, but its composition is new and its detail Indian, with an exquisite quality of local workmanship in stone which roots it firmly in Indian soil. It may indeed be suggested that Akbar's own ideas about the reconciliation of the Muslim and Indian religions in a single

faith find their most vivid expression here in this architecture.³⁷ From the Mughal period, the *Masjid-i Juma* * at Delhi (1644-1658) and the *Badshahi* mosque at Lahore (PL. XXII) (1675)³⁸ are mature achievements on the grand scale. The supreme example of elegance in exploiting the same basic plan is Shah Jahan's *moti** *Masjid* at Agra (PL. XXIII) in white marble (1648-55).³⁹

The sheer variety of Indian mosque architecture is overwhelming. Adequate justice cannot be done here to such masterpieces as the *jami** *Masjid* at gulbarga* (1367) (Fig. 18), a mosque without a courtyard, or the *jami** *Masjid* at bijapur* (Pl. XXIV) with its imposing dome (began in 1558 but not completed till the seventeenth century), or other mosques

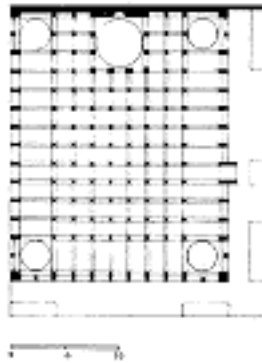


Fig. 18.
Jami* Masjid, Gulbarga*,
the plan (Havell).

of still more fanciful designs. The multi-pillared prayer hall, the bay roofed with a dome, or a horizontal ceiling, or in some regions with a vault, the courtyard with its surrounding arcade or cloister (*riwaq**), the multistoreyed monumental gateway, the polygonal minaret with several balconies, domes of different shapes and sizes, wall revetments generally in stone, the *mihrab** carved in marble or other stone, the generally inconspicuous *minbar*-all these may be listed among the usual elements of Indian mosque design. Yet there is always an unexpected feature, whether in the organization of space, or in the style of roofing, or above all in the use of the minor architectural ingredients. These took the form especially, outside the Mughal domain, of combinations of domed and flat ceilings, the use of clerestories, balconies, decorative turrets, series of small baldachins of extravagant forms, carving detail of Indian origin, and above all the imaginative and unorthodox approach to planning. They made the Indian mosque the most distinctive of its kind, certainly more Indian than Islamic.⁴⁰

Mosque Design in the Anatolian-Turkish Region

An important factor in the development of Turkish Islamic architecture in Anatolia and afterwards in the Ottoman domains is that while all the later styles of Muslim architecture arose out of an earliest Islamic environment, the case of Turkey, like that of Indian sub-

³⁷ Browne, *Op. cit.*, p. 96 f; Havell, E.B., *Indian Architecture*, London, 1927 (Second Ed.), pp. 170-73.

³⁸ Browne, *Op. cit.*, p. 105 f; Havell, *Op. cit.*, p. 216.

³⁹ Browne, *Op. cit.*, p. 102.

⁴⁰ For a general Survey and bibliography for Indian Architecture the abovementioned works of P. Browne and E.B. Havell are to be consulted.

continent to some extent, was more complicated. The new architectural style in Turkey had a dual origin, not only Islam but also Late Roman and Byzantin. It is moreover important, in discussing the development of Turkish religious architecture, to distinguish two epochs, the Pre-Ottoman and the Ottoman.

The first Turkish mosques were simple pillared halls, like the *Ulucami* ('Great Mosque') at Sivas, probably founded at the end of the eleventh century, and those mosques of north-eastern Turkey which follow the old Syrian tradition, also introduced with some modifications in the eleventh century. Examples are that at Silvan (Mayyafarikin), Kiziltepe (Dunaysir), or the Great Mosque at Diyarbakir.⁴¹ But a significant novelty in mosque design that occurred in Anatolia during the saljuq * period (1071-1300) was the omission of the courtyard. Although remodelled, the *Ulucami* at Kayseri probably retains the characteristics of this early design, being a rectangular building with no emphasis on external architecture. The interior reveals a large pillared hall with a dome-roofed mihrab bay. In the centre is an open bay to give daylight. Despite this main function of illuminating the interior it produces the effect of a reduced inner court.⁴²

The new Anatolian type is perhaps best represented by the *Ulucami* at divrigi*, built in 1228-29 by the ruler of the small principality of the Menguceks (Pl. XXV; Fig. 19). This is an oblong building with five aisles, the characteristic domed bay before the *mihrab**, and a central bay with large skylight. Each bay is enlivened with decorative stone vaults. Both the mosque and the adjoining hospital have an extraordinary variety of carved stone decoration, well preserved, and covering the vaults, the unfinished *mihrab**, and the flamboyant entrance portals on the north and west.⁴³

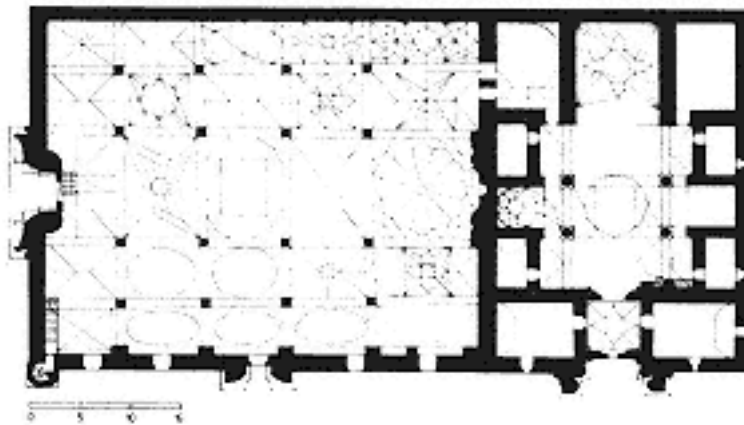


Fig. 19.
*Ulucami, Divrigi**, the plan (Gabriel).

In this early period of Turkish domination of Anatolia some rather hybrid types were produced, following the earlier mosque design but adopting the structural and decorative techniques found on the spot or imported from other Saljuq territories such as Iran, Azerbaijan, or Syria. Among them, however, were highly original buildings, like the *Ulucami*

⁴¹ For the earliest mosques in Southeastern Turkey see: Gabriel, A., *La Turquie Orientale*, 2 vols., Paris, 1940; Kuban, D., *Anadolu Türk Mimarisinin Kaynak ve Sorulari*, Istanbul, 1965.

⁴² Gabriel, A., *Monuments Turcs d'Anatolie*, I, Paris, 1931, pp. 32-35.

⁴³ Gabriel, A., *Op cit.*, vol. II, pp. 174-183; Kuban, D., "The Mosque and Hospital at Divrigi and the origin of Anatolian-Turkish Architecture", *Anatolica II*, 1968, pp. 122-29.

at Van (twelfth century?),⁴⁴ the *Ulucami* at Erzurum (twelfth century?),⁴⁵ the *Alaeddin* Mosque at Nigde (1223),⁴⁶ or the *Gökmedrese* Mosque at Amasya (1266-67).⁴⁷ Worthy of mention, too, are a group of wooden column mosques, best represented by the *Ulucami* at beysehir * (1299) (Pl. XXVI).⁴⁸

The main theme of mosque design during the Ottoman period became, almost exclusively, the organization of interior space under a single dome. After sporadic experiments with the small-domed examples already introduced during the Saljuq period,⁴⁹ the Ottoman architects in great imperial mosques created a new style of domed construction by merging the Islamic mosque tradition with that of dome building in Anatolia.

The process of development had two principal tributary lines. One started from the old scheme of a mosque with a domed *maqsura** and a courtyard. In Turkey this line continued unbroken, culminating in the mosque of *ucserrefeli** at Edirne, built in 1437-47 (Fig. 20). There the domed *maqsura** becomes the central space of the mosque. The dome, resting on a hexagonal support system, rises to about sixty feet, while lateral bays are covered by smaller domes.⁵⁰ This renewed emphasis on an interior space dominated by a single dome became the starting point of a style of which the finest statement was to be made in the sixteenth century.

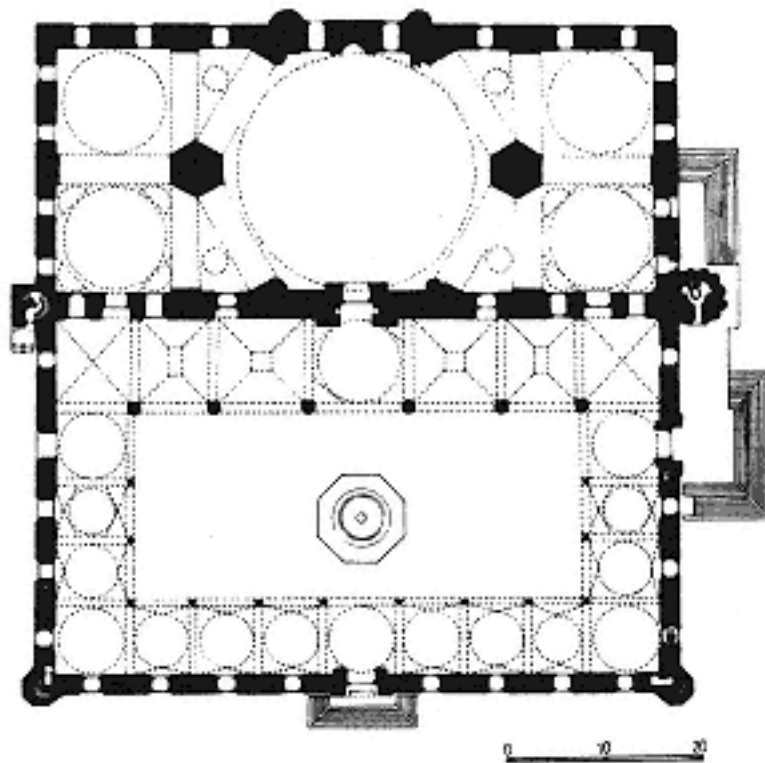


Fig. 20.
The mosque of Ucserefele*, Edirne, the plan.

⁴⁴ Bachmann, W., *Kirchen und Moschem in Armenien und Kurdistan*, Leipzig, 1913, pp. 69-74, plates 59-63.

⁴⁵ Ünal, H.R., *Les Monuments Islamiques de la Ville d'Erzurum et de sa Regios*, Paris, 1968, pp. 28-31.

⁴⁶ Gabriel, *Monuments I.*, pp. 117-122.

⁴⁷ Gabriel, *Monuments II.*, pp. 20-25.

⁴⁸ Kiziltan, A., *Anadolu Beyliklerinde Cami ve Mescitler*, Istanbul, 1958, pp. 36-46.

⁴⁹ For the mosques of the 13th and 14th centuries in Anatolia see Kiziltan's book, note 49.

⁵⁰ Kuran, A., *The Mosque in Early Ottoman Architecture*, Chicago, London, 1968, pp. 177-181.

The other approach to mosque design was through what were called multi-purpose or *zawiya* *, mosques, of which there were many important examples built in the fourteenth and fifteenth centuries. In this building the function of the mosque was combined with that of an *akhi* * *zawiya* *.⁵¹ There are early examples from the fourteenth century, but the best-known is the *yesil* * *Cami* (the Green Mosque) at Bursa, built in 1412-19 for Sultan Mehmed I (Pl. XXVII) (Fig. 21). In its essential plan this mosque was a variation of the earlier Anatolian *madrassa*. The covered *madrassa* and *zawiya* * of earlier centuries had had a central domed hall with one or more *iwans* * opening on to it. Here, the bays, *iwans* *, and central hall are all covered by domes. Meeting rooms, and perhaps occasional guest rooms, are placed on each side of the main axis. Only one bay, that before the *mihrab* *, the former main *iwans* * covered by now by a dome, is raised to designate a prayer space. The arrangement of the entrance side, a two-storeyed unit with its upper rooms connected only to the main lobby, the loggia of the sultan in the middle, and smaller loggias on the ground floor, attests the multi-purpose character of this building. It may also be possible that it served on occasion only for the ceremonies of the *akhi* * guilds. It is also interesting to note that in the original conception of the structure there was probably no provision for a minaret.⁵²

The lineage, then, of the monumental Ottoman mosques can be traced back to the junction of these two tributary traditions, through a process of simplification of the latter and elaboration of the former. The new style first took shape in the *fatih* * mosque in Istanbul, built immediately after the conquest of the Byzantine capital, in 1463-70. This first great imperial mosque was conceived as the centre of a large social complex, consisting of eight colleges, a hostelry, a public kitchen, a primary school, a bath, a caravanserai, and the mausoleums of Mehmed II and his wife. It was the first of a line of religio-social complexes (*külliyeler*), emulated in several variants by the following sultans.⁵³

Throughout the sixteenth century the line of development continued with a succession of great mosques: the Mosque of Bayazid II (1501-06); the mosque of *sehzade* * (1543-48); and the *Süleymaniye* (1550-57) (Pl. XXVIII; Fig. 22),⁵⁴ of *Yenicami* (begun 1597, completed 1663),⁵⁵ and the mosque of Sultanahmet (1609-16) (Pl. XXIX; Fig. 23), all in the capital.

The supreme religious monument of the Turkish style, however, is the *Selimiye* Mosque at Edirne (Pl. XXX; Fig. 24).⁵⁶ Built by the great architect Sinan between 1569 and 1575 for Sultan Selim II, it is an inspired treatment of the universal theme of the domed square. It utilises and transcends all the refinements of previous experiments in one decisive statement of the religious power in a single domed space. Its formal and structural origin is eastern squinch dome. But here the structural system have been developed into an octagonal baldachin of visible support with a refined buttress system holding a dome of 31.50 metres in diameter. The prayer hall is preceded by a square courtyard. In its centre is a *maqsura* * for the muezzins. The sultan's *maqsura* * is situated on the gallery floor at the east

⁵¹ dogan*, A., *Osmanli Mimarisinde Tarikat Yapilan, Tekkeler, Zaviyeler, ve benzer nitelikteki Fütüvet Yapilari*, Istanbul, 1977.

⁵² Gabriel, A., *Une Capital Turque, Brousse. Bursa*, Paris 1958, pp. 79-94; Ayverdi, E.H., *Osmanli Mimarisinde Celebi ve II. Sultan Murad Devri*, Istanbul, 1973, pp. 363-387.

⁵³ Ayverdi, E.H., *Osmanli Mimarisinde Fatih Devri*, Istanbul, 1973, pp. 363-387.

⁵⁴ Egli, E., *Sinan, Die Baumeister osmanischer Glanzzeit*, Zürich, 1954, pp. 77ff.

⁵⁵ Nayir, Z., *Osmanli mimarliginda* Sultanahmet Külliyesi ve Sonrasi, (1609-1690)*, Istanbul, 1975, pp. 135-168.

⁵⁶ *Ibid.*, pp. 35-133.

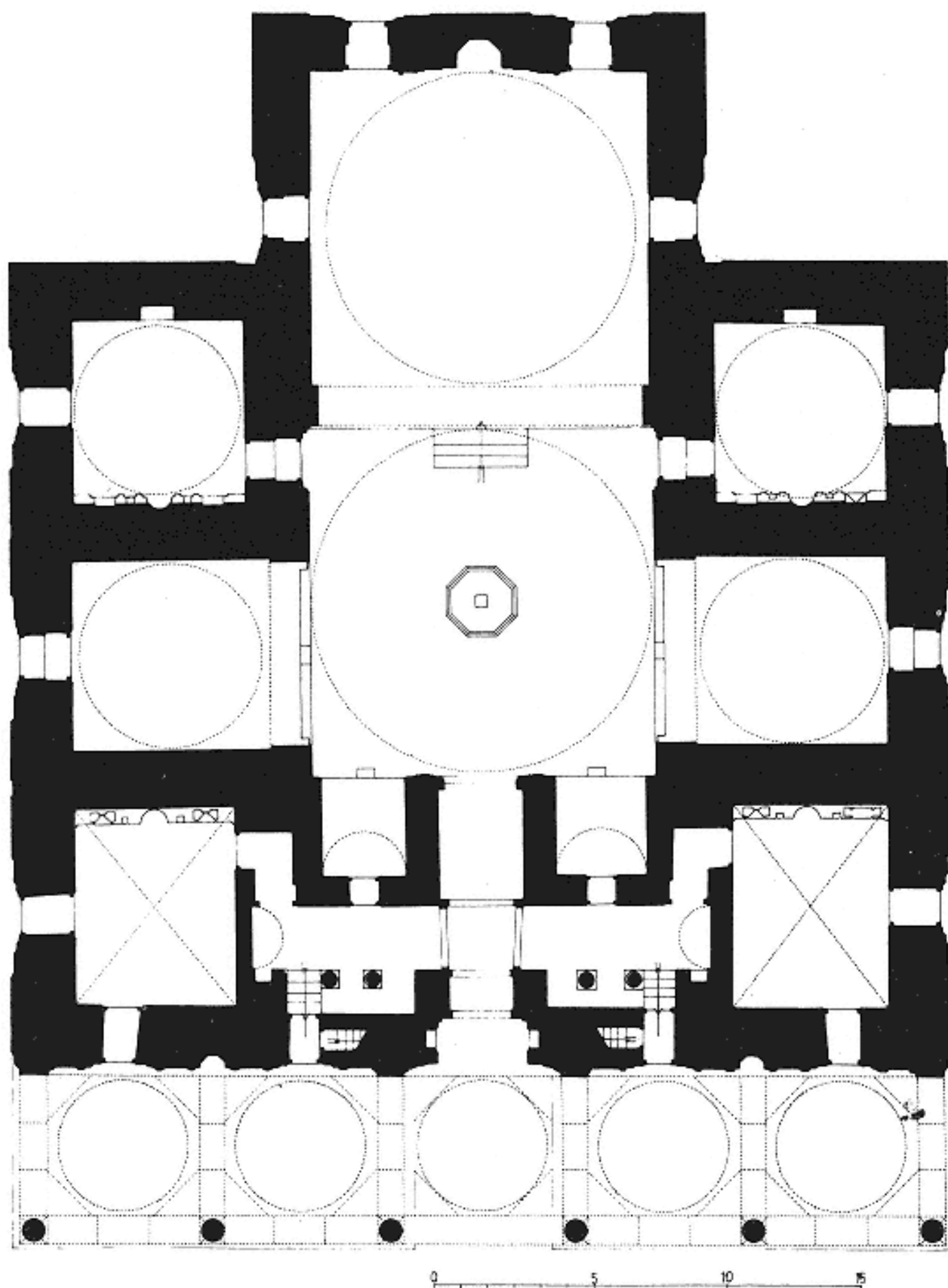


Fig. 21.

The Mosque of Mehmed I (Yesil * Cami), Bursa, the plan (the porch was not completed, dimensions hypothetical).

[< previous page](#)

page_22

[next page >](#)

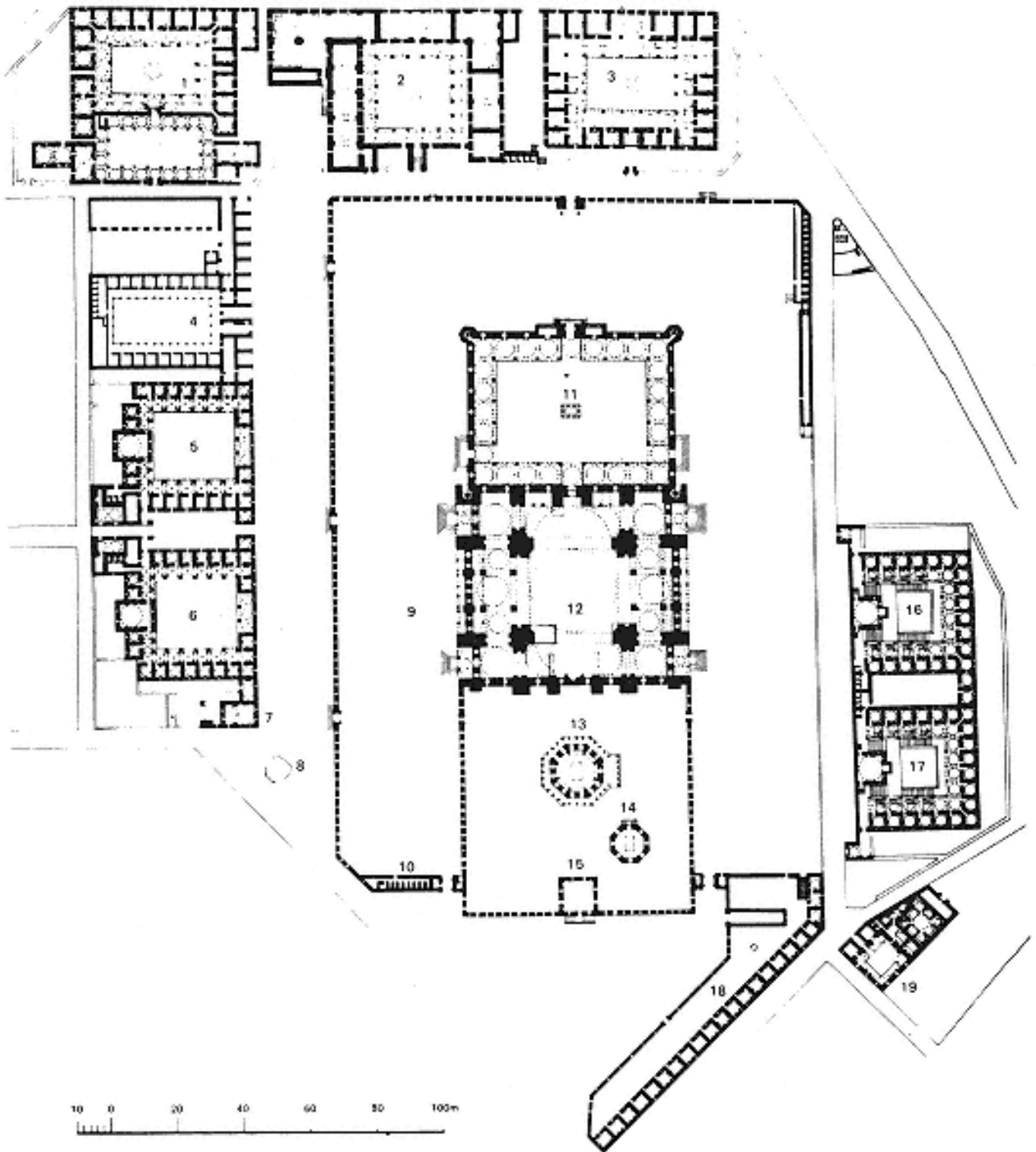


Fig. 22.

The Complex of Süleymaniye, Istanbul, The general plan (Goodwin): 1. The hospital; 2. The Public Kitchen; 3. The Hostel;

4. The School of Medicine; 5. Madrasa; 6. Madrasa; 7. The Quran School; 8. Fountain and Water distribution; 9. Outer courtyard; 10. Latrines; 11. The Courtyard; 12. The Prayer Hall; 13. The Mausoleum of Süleyman I; 14. The Mausoleum of Hurrem Sultan; 15. The Guardian of the Mausoleums; 16. Madrasa; 17. Madrasa; 18. School of Hadis; 19. The Bath; 20. Sinan's Tomb.

corner of the *qibla* wall. In the centre of the courtyard is an ablution fountain (*sadirvan* *), a common feature of mosque courtyards.⁵⁷

57 Kuban, D., "Selimiye at Edirne: its genesis and an evaluation of its style *IVe Congrès International d'Art Turc*, Edition de l'Université de Provence, 1976, pp. 105-109.

[< previous page](#)

page_23

[next page >](#)

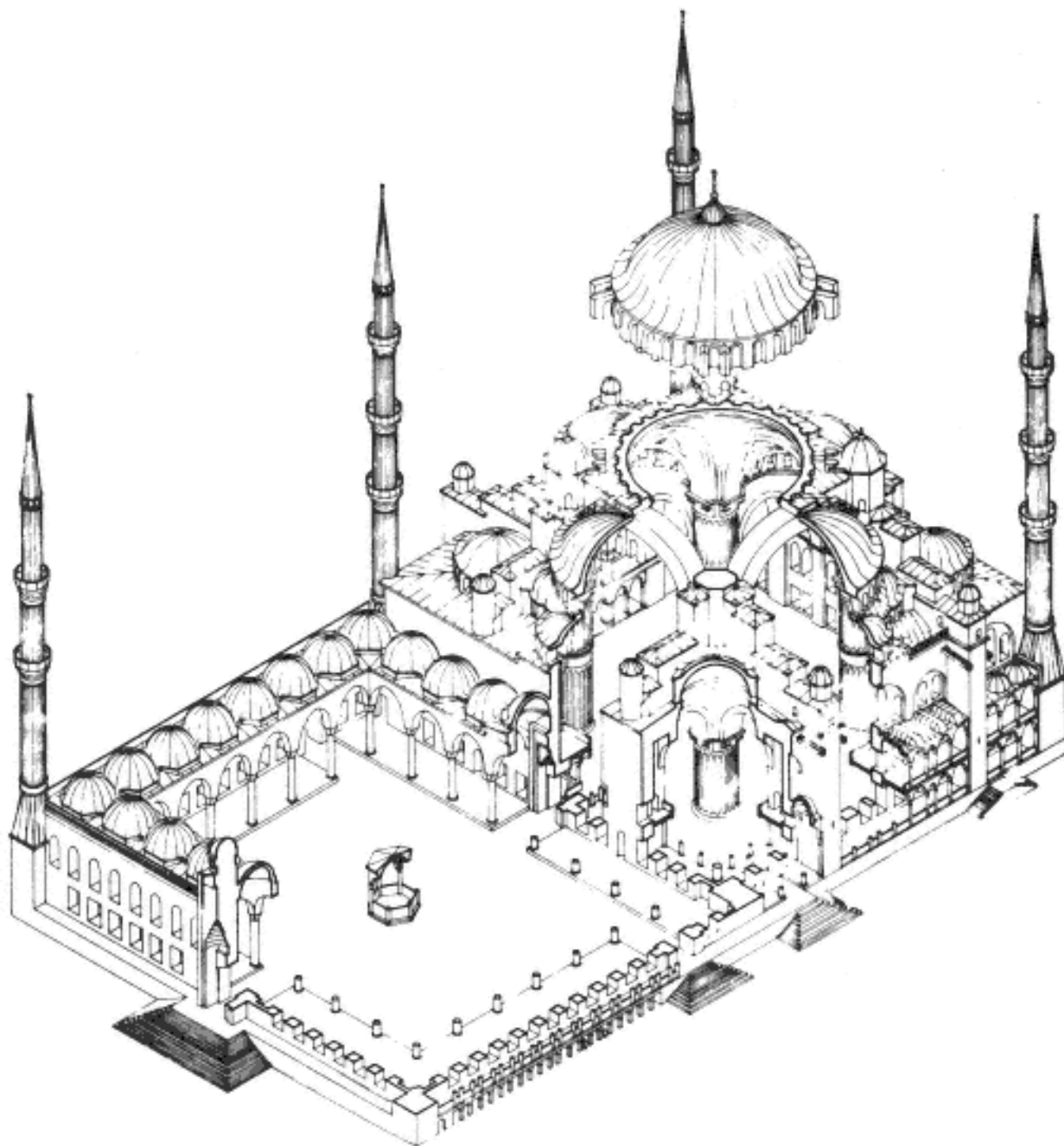


Fig. 23.

The mosque of Sultanahmet, Istanbul, Axonometrical view (Nayir).

In mosques of more modest dimensions we find experimental variations of the single domed space. The dome may for instance be supported by the outer walls, or by a system of free-standing or integrated supports on a hexagonal or octagonal base (Pl. XXXI).⁵⁸ The prayer halls might be combined with courtyards or with colonnades of three or five bays. In some instances a *madrassa* might be combined with the mosque, and then the student cells and study room were placed around the courtyard, as in the mosques of Sokollu

⁵⁸ For the development of small-sized mosques in later periods, see: Kuban, D., "Les Mosquées à coupoles a base hexagonale", *Beiträge zur Kunstgeschichte Asiens, in Memoriam Ernst Diez*, Istanbul, 1963, pp. 35-47; Batur, S., "Osmanli Camilerinde Sekizgen Ayak Sisteminin gelismesi * Üzerine", *Anadolu Sanati Arastirmalari*, Nr. 1, Istanbul, 1968, pp. 139-163.

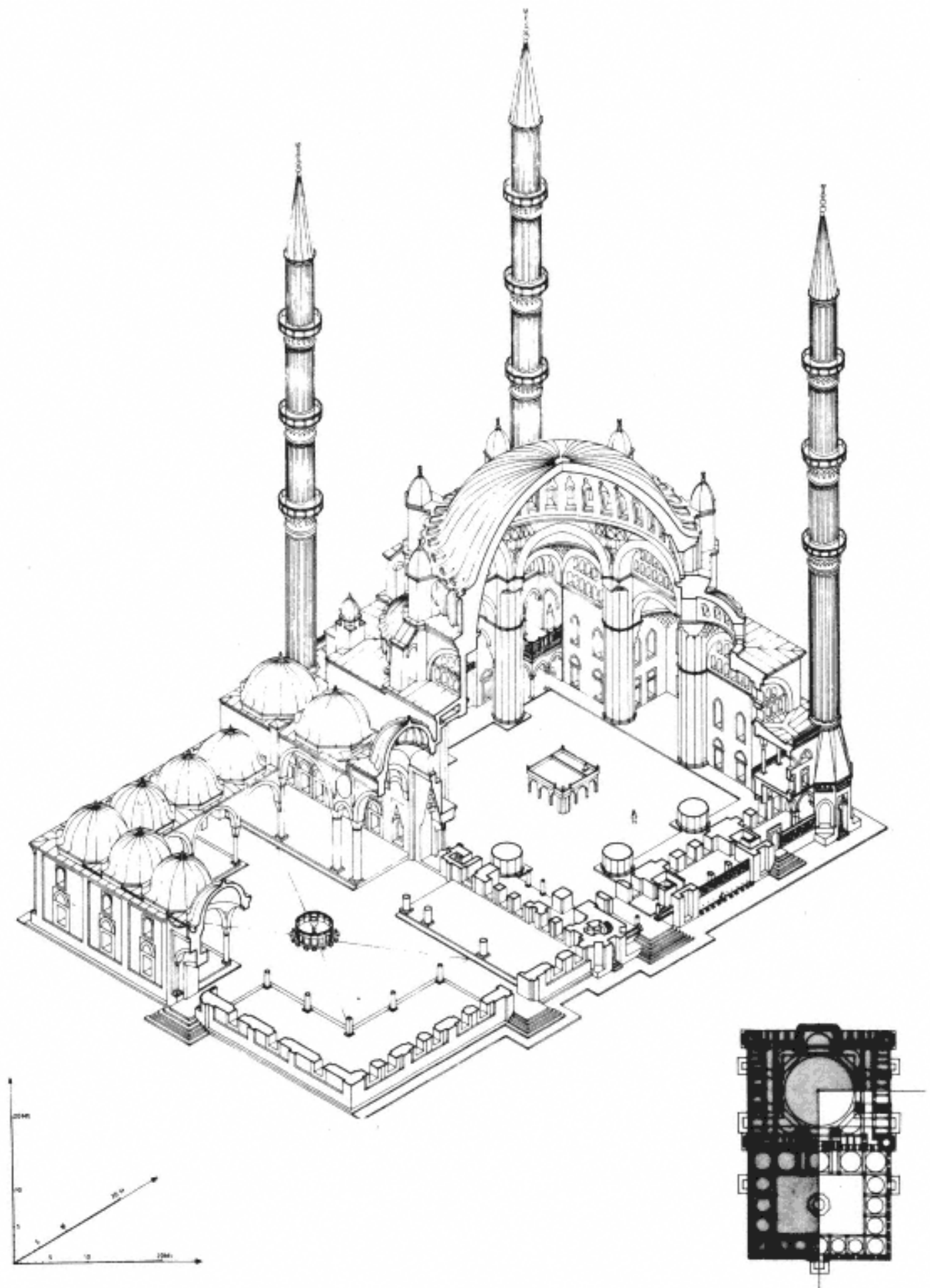


Fig. 24.

The mosque of Sultan Selim II, Edirne, Axonometrical view. (Kuban-Kuzucular)

[< previous page](#)

page_25

[next page >](#)

and Mihrimah, both in Istanbul (Pl. XXXII).⁵⁹ In the nineteenth century the addition of sultan's apartments to the imperial mosques gave a secular aspect to the appearance of the mosque.

The Ottoman architects were restrained in their use of decoration. Tiled panels were used sparingly, for the dadoes of the walls, around or on the *mihrab* *, over the window. The *mihrab* * with tiled walls is mostly of the fifteenth century, although there are some exquisite examples from the sixteenth, as in the Rustem Pasha mosque. But in the classical period the *mihrab* * and the *minbar* were generally executed in marble. The domes and the upper registers of the walls had stylized floral painted decoration. In the early centuries a *muqarnas* in stucco might be used, but these were abandoned in the classical period. Ottoman decoration, generally speaking, was always subordinated to the architectural line.

The hallmark of Ottoman architecture was the structural clarity of development of a domed space and its crystalline configuration as an exterior. In the history of Islamic architecture the Turkish-Ottoman style was the most Mediterranean and least medieval in conception and spirit.⁶⁰

⁵⁹ Kuban, D., "An Ottoman Building Complex of the Sixteenth Century: The Sokollu Mosque and its dependencies in Istanbul", *Ars Orientalis VII*, 1968, pp. 19-39.

⁶⁰ Akurgal, E., Ed., *Art and Architecture in Turkey*, New York, 1980, pp. 137-147; Atil, E., Ed., *Turkish Art*, New York, 1980; Gurlitt, C., *Die Baukunst Konstantinopels*, 2 vols., Berlin, 1912; Göknıl, U., *Türkische Moscheen*, Zürich, 1953; Göknıl, U-Vogt, *Ottoman Architecture*; Goodwin, G., *A History of Ottoman Architecture*, London, 1971.

II Religious Architecture other than Mosques

The differentiation of buildings other than mosques for religious purposes or with religious connotations-the tomb, the *madrasa*, the "*zawiya* *" -was a late development in Islamic architecture. Yet in many instances they were to assume as much importance as the mosque itself, and from the architectural standpoint they are no less important. The main problems of typology and vocabulary raised by the tomb, the *madrasa*, and the *zawiya** are presented in the following pages.

Religious Memorials and Tombs of Holy Men

The worship of saints or even of the Prophet is blasphemy according to Islamic orthodoxy. When Muhammad died, he was buried in Ayesha's dwelling and it was forbidden to visit his corpse.¹ In accordance with this teaching no special treatment was given to the burial places of the four rightly guided Caliphs or the Umayyads or early Abbasids, and no building of any importance was put up over their graves. From the early centuries only two monuments have survived, and these are the two most important relics of early Islam, the *kaba** at Mecca and the Dome of the Rock (*Qubbat alsakhra**) in Jerusalem. The *kaba**, the pre-Islamic shrine of which Azraqi gives a detailed description in the ninth century² has little relevance to the history of Islamic architecture,³ so far as its form and later accretions are concerned. But in the history of Muslim commemorative buildings the Dome of the Rock has a special place as a unique monument dedicated to the Prophet's memory, the only memorial not sited on a burial place, and the oldest dated extant building of Islamic architecture.

Furthermore, the area in which the Dome of the Rock was built, the *haram** *alsharif**, was already accepted as holy in the earliest days of Islam and the first mosque built there, the Aqsa Mosque (*al-Masjid alaqsa**), was second only to *al-Masjid alharam** at Mecca.⁴ yaqubi* relates that after the battle of karbala*, when Ibn az-Zubayr proclaimed himself caliph, and after the retreat of the Umayyad army from its siege of Mecca, Abd-al-Malik, son of marwan*, in order to discourage pilgrimages to Mecca, resolved to build a memorial in Jerusalem as a substitute for the *kaba**.⁵ The site chosen for the monument, a rock with a cave beneath, was already a sacred place in pre-Islamic times. This rock, to which many Muslim legends came to be attached, was to become the new holy place of pilgrimage. An additional motive, according to Muqaddasi, as in the case also of the Great Mosque at Damascus, was the Caliph's desire to surpass in splendour the Holy Sepulchre, which was

1 Demombynes, M.G., *Mahomet*, Paris, 1969, second ed., p. 206.

2 Azraqi quoted by Creswell, *EMA*, pocket ed. p. 1f.

3 See for a detailed description: Snouck Hugronje, *Mekka*, Leyden, 1931 (English version).

4 Grabar, O., *EI*, New Edition, article '*alharam** *alsharif**'.

5 Creswell, *EMA I*, pp. 42f.

then still extant (Pl. XXXIII; Fig. 25). A rotunda plan was needed to facilitate the circumambulation (*tawaf* *) of the Rock. There was a long tradition of such plans on Syrian soil going back to the time of Constantine the Great, with memorials, *martyria*, or simple churches. The Holy Sepulchre too incidentally made use of a rotunda for the part of it which surrounded the actual tomb of Christ.

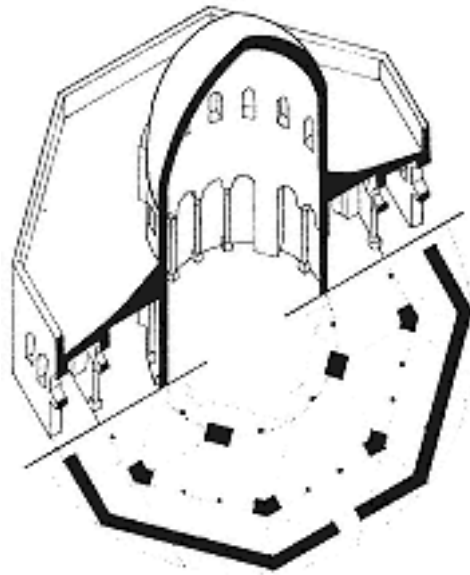


Fig. 25.
The Dome of the Rock (Qubbat al-Sakhra*),
Jerusalem, Axonometrical view.

Art historians have kept up an unceasing flow of studies of the Dome of the Rock. In the context of Islamic architecture it remains unique, but in that of Roman architecture its form is directly in line with the late tradition in Syria. All of its important features, from the interior double colonnades to the great wooden dome, have been shown to be faithful reproductions of features of the Cathedral of Bosra⁶ in southern Syria. Its well-known mosaic decoration is Islamic only in the sense that the vocabulary is syncretic and does not include representation of men or animals. The entire building might be viewed as the last blossoming of the Hellenistic tradition before the Islamic synthesis created its own formulas.

After the ninth century the veneration of tombs of pious men became popular, especially in eastern Islam, and the memorial tomb with religious or secular connotations⁷ assumed a leading place among the types of monumental building in Islamic architecture. Clearly the urge to build tombs owed nothing to Islamic dogma but rested on deep-seated popular belief. It cannot be easily determined whether "cultic and social functions around tombs or cemeteries ... preceded the actual appearance of an architectural form"⁸ or whether it was the existence of a tradition of monumental tombs which governed its development in Islamic countries. But once again it was in older architectural tradition

⁶ Ibid., pp. 70-78.

⁷ No formal difference practically exist between the secular (and religious).

⁸ Grabar, O., "The earliest commemorative structures, notes and documents", *Ars Orientalis*, VI (1966), pp. 7-46.

that the form of building adopted for tombs in Islam originated and once more it was the dome, *qubba*, which seems to have been the basic formal indication of a burial place, *qabr*. The domed square may well derive from Sassanian building tradition or, as suggested by Van Berchem, from Syrian example, while the columnar domed baldachin, such as the second mausoleum built over the tomb of Ali in 929, which according to Ibn Hauqal had a dome raised on columns⁹, may have been inspired by post-Roman examples or the fire altars of the Zoroastrians.

The first partially extant dated mausoleum of Islamic architecture which also has religious significance is the Qubbat al-Sulaibiyya * near Samarra, erected after 862 for the Caliph al-Muntasir* (also called al-Muntasir*) at the command of his mother, who was a Greek. It is a domed square chamber enclosed in an octagon, with an outer ambulatory. The first mausoleum known to Muslim history, it remains the only example of a tomb chamber with an external ambulatory and must have been a conscious imitation of the Dome of the Rock. Whether it was visited by the faithful or became an object of special veneration is not known.¹⁰

Apart from the *Qubbat al-Sulaibiyya* the prevalent type among the early mausoleums still extant, mostly in Khorasan and Central Asia, is a square chamber covered by a dome. It has continued as the most popular form throughout the Islamic world (Fig. 26). All the examples which can be dated are later than the ninth century, except possibly for the mausoleum of al-Hakim* al-Tirmidhi* at Tirmidh which may be ninth-century.¹¹ The earliest datable tombs in Egypt, the so-called *saba* banat**, are from the Fatimid period (1010) and have similar forms (Pl. XXXIV).¹² In North Africa the tomb of a pious sheikh

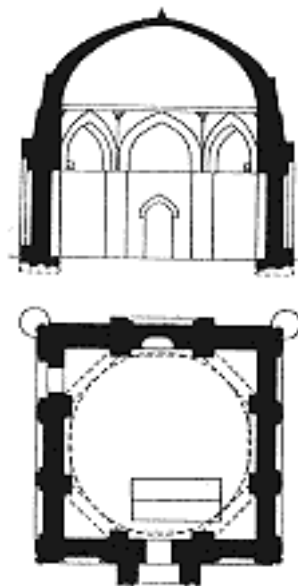


Fig. 26.
Tomb of Alamberdara* at
Astanababa*, Turkistan*,
section and plan.

⁹Ibn Hawqal quoted by Grabar, "The earliest com...", *Ars Orientalis*, VI (1966), 16.

¹⁰Creswell, *EMA II*, pp. 283-85; the Herzfeld excavation brought to light three graves, possibly those of al-Muntasir*, al-Mutazz*, and al-Muhtadi*; Herzfeld, E., and F. Sarre, *Archäologische Reise im Tigris- und Euphratgebiet*, Berlin, 1911-20, vol. I, p. 86.

¹¹Grabar, O., *Op. cit.* p. 16; for a photograph see: Moslem Religious Board of Central Asia, *Historical Monuments of Islam in the USSR*, Tashkent, undated, fig. 16. For Albaum the Mausoleum is from the Mongol period, although he is not specific about it. Albaum, H.I., *Herren der Steppe*. Berlin, 1976, p. 78.

¹²Creswell, *MAE II*, pp. 107-113.

(a *marbat* * or a *wali**) remained a simple *qubba* and rarely became monumental in size as in the eastern Islamic countries, and it was only after the twelfth century that such cases occurred.¹³

A second and later type of mausoleum was the tomb-tower, of *gunbadh**, a cylindrical or polygonal tower with a conical roof (Fig. 27). The earliest examples of these, however, are so highly developed that they must be assumed to have had a long history of formal evolution. Moreover their location in north-eastern Iran and later diffusion favour the old theory that they were derived from the wooden towers or posts of the steppes, or perhaps from the stupas.¹⁴ The earliest known and dated instances of the *gunbadh* associated with a

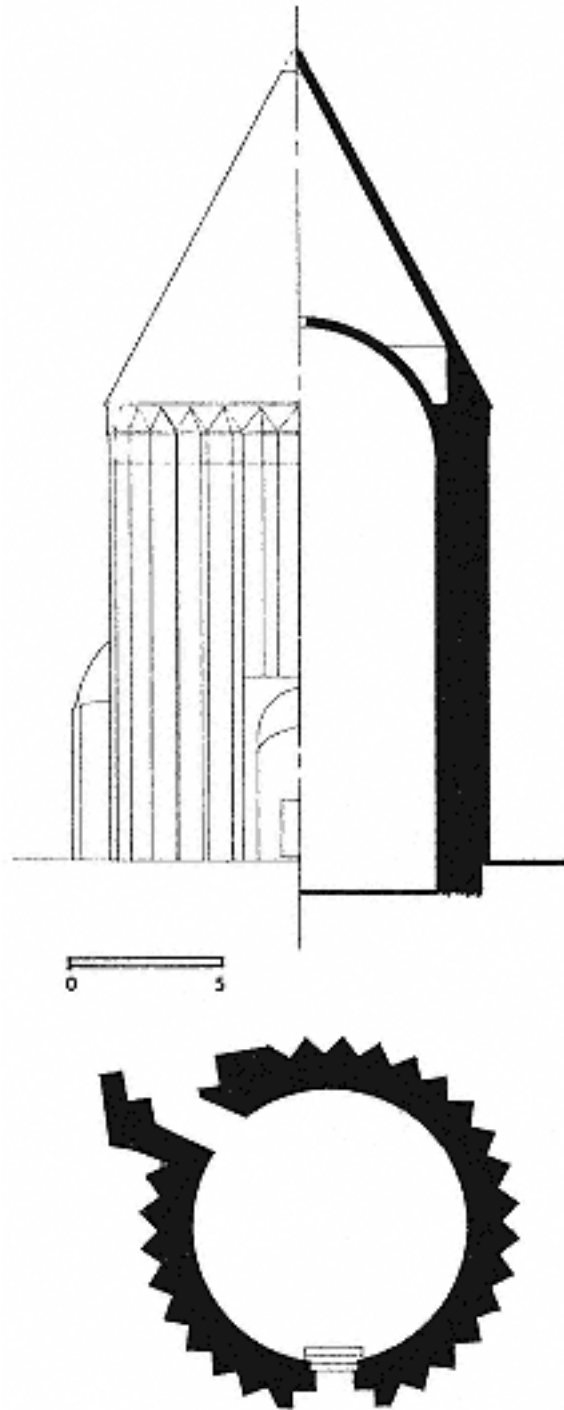


Fig. 27.
Tombtower (Gunbadh) of ala* al-Din*, Waramin*,
section and plan (Wilber).

¹³See Marçais, G., *L'Architecture Musulman d'Occident*, Paris, 1954, especially pp. 435-37.

14Diez, E., *Persien, Islamische Baukunst in Churasan*, Hagen, 1923, pp. 51-55.

[< previous page](#)

page_30

[next page >](#)

holy man are the *imamzada* **abd** *allah** at Lajim (1022) and the *piri** *alamdar** (Pl. XXXV) at damghan* (1027), both in north-eastern Iran. The plan which produced some of the finest memorials, in later Islamic architecture, was a sort of hybrid, of the tomb tower with the domed square.

In Anatolia and Iran there is a rare type of tomb associated with a small oratory. These iwan tombs consist in medieval Turkey of an underground mortuary chamber with an open *iwan** serving as a funerary *masjid* (Pl. XXXVI).¹⁵ In Iran a tomb associated with a small *masjid* was probably introduced during the Mongol period. An interesting specimen of the type is the tomb of baba* qasim* at isfahan*, of 1340-41 (Fig. 28).¹⁶

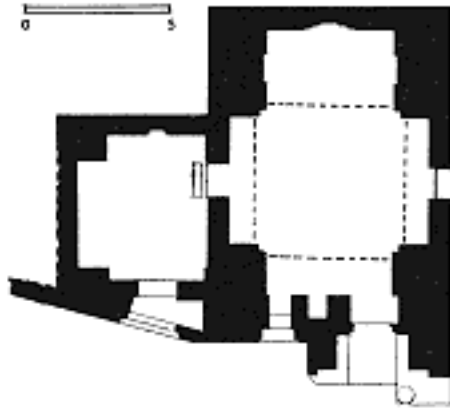


Fig. 28.
The tomb of Baba* Qasim*, Isfahan*, the
plan (Wilber).

The simple square tombs surmounted by domes contain one or more cenotaphs (*lahd**). These are generally placed directly over the *qabr* and may be of brick, stone, or wood.¹⁷ The cenotaph is usually covered with a brightly coloured fabric and surrounded with wooden screens, also called *maqsura** (Pl. XXXVIII). In larger buildings more directly linked with the tomb-tower tradition the mausoleums may have an underground mortuary chamber, generally square in plan, and above that, at ground level, a spacious dome-covered room which may also have a *mihrab**. From the saljuq* period onwards, especially in western Iran, Azarbeijan, and Turkey, the Mausoleum is usually on this plan (Fig. 29). Indian Muslim architecture followed this saljuq* tradition of tomb building, but with a great deal of formal and decorative invention. The main type was a domed square with a mortuary chamber (*maqbara* or *thakhana*) below the main room (*huzra** or *astana**), which was used as a *masjid*. In many cases the mausoleum of a great saint became the centre of a large shrine complex, a *mashhad*. Thus one of the most important shii* devotional centres developed around the tomb of fatima* at Qumm, the earliest dated extant mausoleum. Najaf, Karbala, and Mashhad all developed in a similar way (Pl. XXXVIII). Following the example of these eastern shrines, the tombs of the Fatimid caliphs were embellished with a *masjid* or other service buildings. Probably to compete

15 Sözen, M., "Anadoluda Eyvan Tipi Türbeler", *Anadolu Sanati arastirmalari**, I (1969), pp. 164-209.

16 Godard, A., *The Art of Iran*, London, 1965, p. 313.

17 Those of wood are called *tabut**; In Egypt stone or brick cenotaphs are called *tarqiba** (Lane, *Op. cit.* p. 243); in Turkey *lahit*, although *lahd* is a more general term for every kind of cenotaph.

18 Brown, P., *Indian Architecture, Islamic Period*, Bombay, 1968, fifth ed. p. 4.

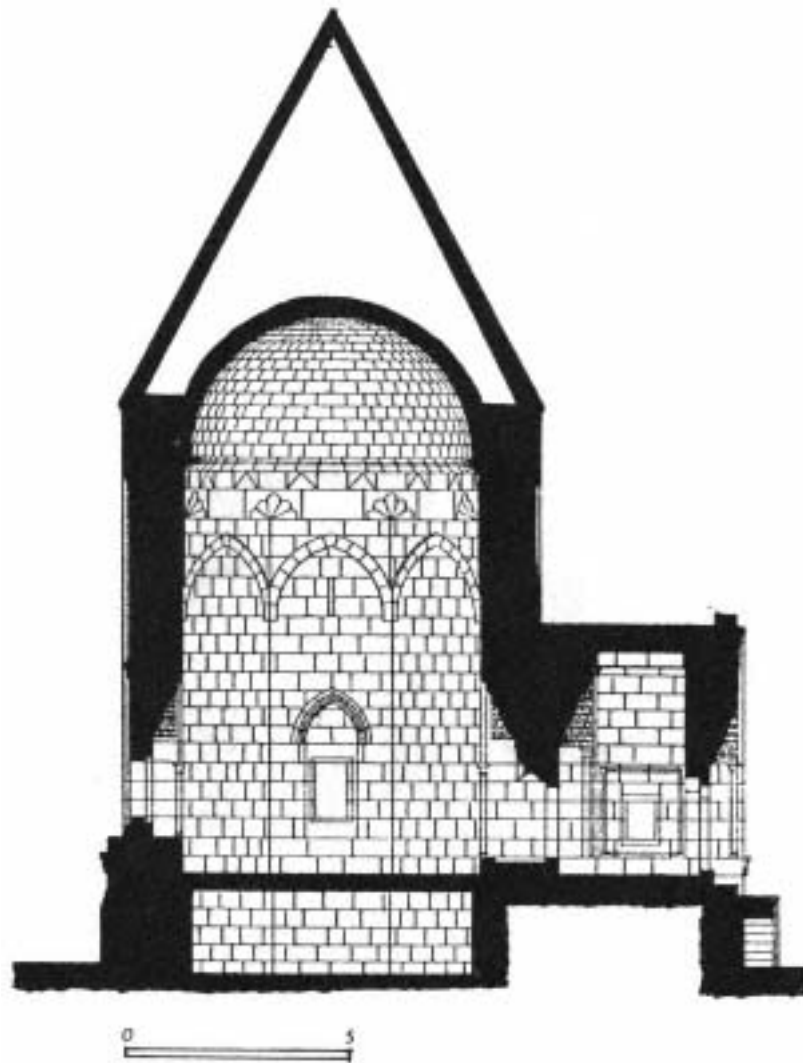


Fig. 29.

The tomb of Ali * Jafar*, Kayseri, Turkey, the section (Gabriel).

with the shii* holy centres in their areas, the saljuqs* built the tomb of Abu hanifa* in Baghdad into an important religious centre. According to muqaddasi*, his tomb was at first covered by a sloping roof, *saqaf*, with a covered prayer place, *suffa**, built next to it. Later, in 1067, a new *turba* was built and a *madrassa* and other buildings added to it.¹⁹

The development of these shrine complexes indicates that a single grave, which can be called without any specific formal connotation *qabr*, *maqbara*, *mazar**, *darih**, or in early usage also *turba*, becomes in shii* practice a *mashhad* when its religious importance grows. It corresponds, as Herzfeld pointed out, to the Christian *martyrium*.²⁰ Thus a single grave, *maqbara*, could also be called a *mashhad* or a *maqam** or a *ziyara** whenever its expiatory merits were highly regarded and widely known and appropriate buildings put up around it. Furthermore any place or building could be known as a *mashhad* or *maqam** if there were the grave of a holy man inside its precincts (Pl. XXXIX). This is true in particular of a *ribat**. Thus Nasir-i-Khusraw describes instances where a *mashhad* resembles a *ribat**.²¹ In this way

¹⁹ Grabar, O., "The earliest...", *Ars Orientalis*, VI, p. 25.

²⁰ "Mashhad according to Arabic etymology means place of a *shahid**, of one who "witnessed" the shahada* "confession of Unity of Allah" not necessarily by dying for it as shahid* 'martyr'. This meaning comes close to that of Greek martyrion; however the word is not solely Arabic; it replaces the Syriac *shahda* (martyrium) as an architectural term. Herzfeld, "Damascus,....", *Ars Orientalis*, X, p. 18.

²¹ Nasir-Khosrow, *Safar-nameh*, trans. Ch. Schefer, Paris 1888, pp. 42 ff, quoted by Grabar, *Op. cit.*, p. 9.

in later periods the holy tomb, the *khanqah* * and the *zawiya**, had a connected development in consequence of the rise of the Sufi brotherhoods (*tariqat**). The tombs of such venerated sheikhs as Yasawi, jalal* aldin* rumi*, or hajji* Bektash became the nuclei of a large convents. In terms of design it is difficult to assign any specific character or organized plan to these architectural agglomerations. From Muqaddasi's account of several *mashhad* complexes it becomes sufficiently clear that they were holy places of pilgrimage or for visiting, their standard ingredients being one or more mausoleums of holy men, a *masjid*, and service buildings. They are thus similar to all the other holy places of pilgrimage including Mecca, the Tomb of the Prophet in Medina, and the Haram area in Jerusalem. Herzfeld points out, however, that the corridor for circumambulation of the tomb was an established custom in shii* shrines.²²

In Egypt too a funerary mosque is called *mashhad*. It may be that at first the mausoleum had a mihrab niche, as has been found, for example, in one of the tombs of saba* banat*.²³ Later a mosque would be built over a grave, the earliest known example being the *Mashhad of sharif* tabataba** in Cairo (943), a sanctuary with many domes.²⁴ Peculiar to Egypt are those of Aswan with their central domed chamber and flanking rooms and courtyards introduced during the Fatimid period.²⁵

It is sufficient for our purpose to observe that only two of the terms used in this context have had a direct, specific connotation with it, the *qubba* and the *gunbadh**. The former applies to domed square or any domed baldachin, the latter essentially to a tomb-tower. The word *qubba* in reference to the domed mausoleum is used only in Arabic-speaking lands, particularly Egypt and North Africa. In Central Asia the domed mausoleum of a saint is called *mazar**. In Iran, on the other hand, the tomb of a shii* saint is called *imamzada** without regard to its architecture. In Turkey and in eastern Islam outside India any type of tomb building is called *turba*, while in India the term in common use is *qabiristan*.²⁶ This richness of vocabulary is a sure indication of the importance of tombs in the folklore of Muslim countries. It must also be remembered that there was little or no formal differentiation in tombs between secular and sacred.

Institutions of Learning: The Madrasa

Islamic religious education, being based on the Koran and literature of the canonical tradition (*hadith**), has always been dispensed, at least partly, in the mosque. We have seen that the word *madrasa* was used specifically for an enclosed space (*hujra**) in the mosque to serve the purpose of teaching.²⁷ It is also known that each *madhhab*, or school of law, of Islam had its private circle (*majlis* or *halqa**) of students in a mosque. Often a private house near the mosque would be donated to a body of teachers (*ahl alilm**, *fuqaha**, *ulama**, *muhaddithin**, *mudarrisin**). It seems too that on occasion they also taught in houses of their

²² Herzfeld, E., "Damascus: Studies...", *Ars Islamica*, IX (), p. 00.

²³ Creswell, *MAE I*, p. 113.

²⁴ *Ibid.*, pp. 11-15.

²⁵ Monneret de Villard, U., *Le necropoli musulmane di Aswan*, Cairo, 1931; Creswell, *MAE I*, pp. 131 ff.

²⁶ Brown, P., *Op. cit.*, p. 4: the terms *gunbadh*, *gunbaz*, *rauza* are also used, the first two indicating a domed square.

²⁷ Pedersen, *Op. cit.*, p. 337 and 358.

own.²⁸ In Egypt the Fatimids founded "houses of learning" (*dar al-ilm**) which also sponsored missionaries to propagate shii* doctrines among the Sunnis. Neither these, however, nor the teachers' private houses have survived. The *madrasa* as an institution of higher learning housed in a special type of building was created in the eastern Islamic lands under Turkish rule.

According to a generally accepted theory the development of the *madrasa* as a centre of Sunni teaching was a consequence of the struggle of Sunni sultans and emirs against subversive sects, such as the *qarramiyya** and others, which were then proliferating in Iran and Khorasan. The Ghaznawid Sultan mahmud* is known to have built four *madaris** in Nishapur and another was built there by Sultan Tughrul.²⁹ But the really prolific founder of such colleges was the Vizier of malikshah*, nizam* al-Mulk, who during the second half of the eleventh century established a veritable "chain of colleges" in such cities of the Saljuq domain as Baghdad, Shiraz, Isfahan, Nishapur, Herat, and many others. Called *nizamiyya**, and as teaching centres for famous scholars of Islamic law, they are regarded as having played a fundamental part in saljuq* political administration. In the twelfth century Turkish rulers of lesser principalities, like the famous nur* aldin* of Syria, or the amirs of Anatolia, introduced the *madrasa* also to the Mediterranean lands.

Though the different Muslim areas developed each their own type of *madrasa*, there are functional and architectural elements common to them all. Basically, it is composed of a meeting room or rooms for teaching, student cells, and a courtyard or covered central hall, with the possible addition of a room to be used as an oratory. A larger *madrasa*, such as the *mustansiriyya** in Baghdad, could have other facilities, a library, a bath, a kitchen, or an infirmary. The areas in which the students gathered were usually open *iwans**, arranged around a central court along with the students' cells, as a general rule, though not always, in symmetrical fashion. The main axis was occupied by the largest *iwana**, where the students met during the warm weather, and there might be closed rooms for use in winter. The earliest type of *madrasa* seems simply to have combined student cells with a mosque, as when Malikshah for instance added student cells to the *Masjid-i juma** at Isfahan. In the twelfth century, however, it seems to have become customary to orient the main *iwana** in such a manner that it could serve also as the prayer room, or to build into the *madrasa* a room properly oriented towards Mecca.³⁰ It was only in Turkey that the *madrasa* underwent a development wholly independent of the mosque and not oriented according to the *qibla* direction.³¹ Here too, however, many of them share a characteristic common among those of other areas in incorporating their founder's tomb. It may indeed be said that many later *madrasa* buildings, especially in Egypt, were but memorials to their founders, with a mausoleum more impressive than the *madrasa* itself.

The architectural plan of the *madrasa* has been a subject of long discussion.³² Many

28Ibid., p. 352f.

29 Sayili, A., "Higher Education in Medieval Islam", *Ankara Universitesi yilligi**, II (1948), p. 55.

30 Such as for example: The *madrasa* of Nur al-Din in Damascus, (A.D. 1172). The *madrasa* known as Khaydariyya in Qazvin, perhaps going back to the twelfth century; and many mamluk* *madrasas*.

31 For the Madrasas in Turkey: Kuran, A., *Anadolu Medreseleri*, vol. I, Ankara, 1969. Sözen, M., *Anadolu Medreseleri, Selçuklular ve Beylikler Devri*, vol. I, Açık Medreseler, Istanbul, 1970.

32 For the discussions on the origin of the *madrasa* plan: Van Berchem, M. "Origine de la Madrasa", *Corpus Inscriptionum Arabicarum*, I, pp. 254-69 (1896) and pp. 533-36 (1900); Creswell, K.A., "The origin of the cruciform plan of Cairene madrasas", *Bulletin de l'Institut Français d'Archéologie Orientale*, Tome XXI (1922), pp. 1-54; Herzfeld, E., 'Damascus: studies...', *Ars Islamica*, vol. X (), pp. 13ff; Godard, A., "L'origine de la madrasa, de la mosquée et du caravansérail à quatre iwans", *Ars Islamica*, vol. XV-XVI (1951), pp. 1-9.

scholars, including myself, think its origins may well be found in the common house plan of Central Asia and Khorasan, where the first *madaris* * were built. One indication that this is likely is that we find in Anatolia early Turkish *madaris** of the twelfth century with the same actual plan as a Central Asian house (Fig. 30).³³ Such buildings show also that the early *madrasa* did not necessarily have an open courtyard. An *iwan**-type house can have a covered central hall just as well as a courtyard and in either case the addition of student cells can convert it into a *madrasa*. There may be something, too, in the theory of Diez, both stylistically and historically, that the cells surroundig a courtyard are a reminiscence of the Buddhist monastery (*Vihara*).³⁴ For the Ghaznawid culture in which the first great nomadic rulers of eastern Iran, Afghanistan, Central Asia, and parts of Northern India originated was a combination of the Buddhist with the Islamic tradition.

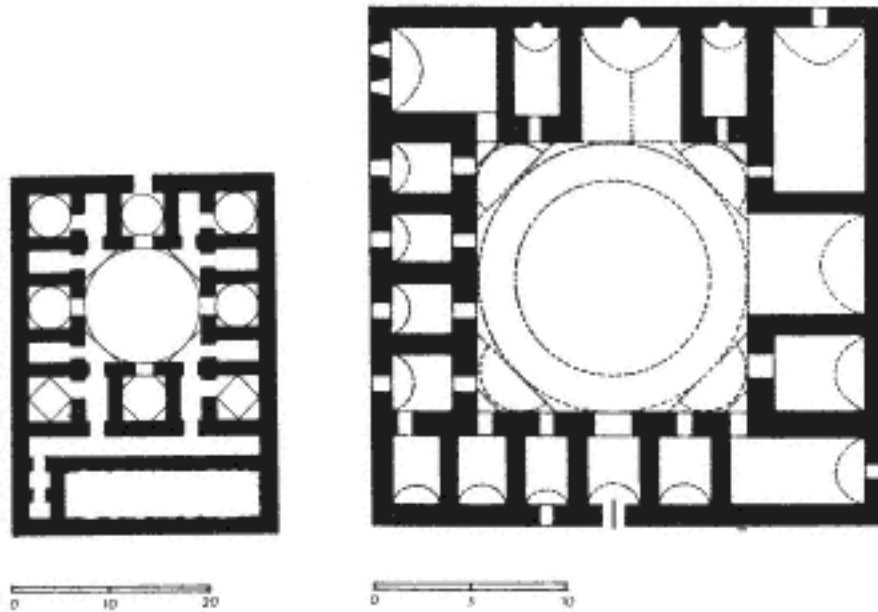


Fig. 30.
House at Marw (left) and the madrasa of Yagibasan*.

It must, however, be acknowledged that there was another plan which played an even greater part in *madrasa* development, and that was the placing of an *iwan** on each of four sides of a central courtyard. The four-*iwan** residential *madrasa* is both early and widespread. In excavations at Lashgari Bazar, near Ghazna, a palace of the Ghaznawid sultans with a four-*iwan** courtyard has been excavated.³⁶ This cruciform plan seems to have been well established also in Egypt for residential buildings. At fustat*, excavations have uncovered a group of eleventh-century houses which with minor variations have each four *iwans** around open courtyards.³⁷

The Nizamiyya at Khargird, now destroyed, but known to have been built before 1087, according to Godard had four *iwans**.³⁸ Apart from this, which must still be considered

33 Kuban, D., *Anadolu-Türk Mimarisinin Kaynak ve Sorunlari*, Istanbul, 1965, p. 48 and pp. 137 ff.

34 Diez, E.,

35 See Pugachenkova, G.A. *Puti Razvitiia Arhitektury Iuzhnogo Turkmenistana*, Moscow, 1958, figure on p. 204.

36 Schlumberger, D., "Le Palais Ghaznévide de Lashkari Bazar", *Syria*, XXIX (1952), pp. 251-270.

37 Creswell, *MAE I*, pp. 119-128.

38 Godard, A., *The Art of Iran*, London, 1965, pp. 287-91.

uncertain, the earliest example of a four-*iwan** madrasa is the *Çifte Medrese*, or *sifaiye**, at Kayseri (Pl. XL), in central Anatolia, built in 1205. Strangely enough it has been disregarded in the discussions of the four-*iwan** madrasa (Fig. 31). It does not, however, answer the question whether the four-*iwan** madrasa does in fact derive from the ordinary four-*iwan** courtyard house.

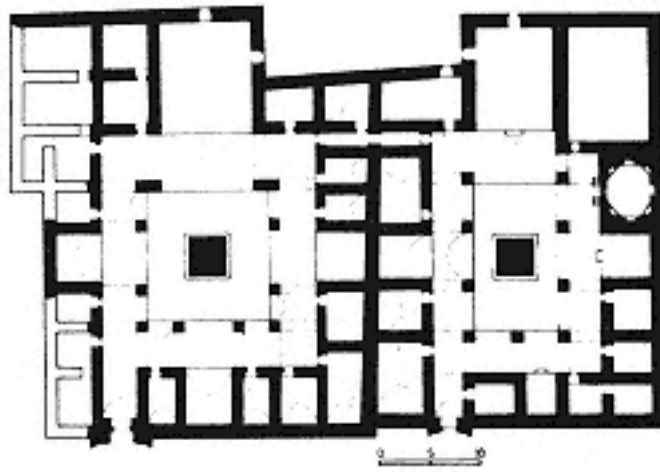


Fig. 31.
Çifte Medrese, Kayseri, the plan.

Another theory is functional. It suggests that the need to house each of the four orthodox schools of law (*madhahib**) in a single college necessarily produced the four-*iwan** madrasa.³⁹ The oldest known example of a madrasa thus serving each of the four rites is the *mustansiriyya** in Baghdad (1234) (Pl. XLI). But this is not a four-*iwan** building, whereas the earliest extant madrasa which is, the *Çifte Medrese* at Kayseri already mentioned, was apparently not constructed to serve the four rites. It is in Egypt that this pattern of use is most commonly to be found. There, however, the madrasa was always oriented toward Mecca so that the main *iwan** could be used as a *masjid*. Moreover most such schools have two rather than four *iwans**. Sometimes two adjacent *madaris** were built to serve the four rites. Indeed, though the single madrasa for the four rites was never common, the four-*iwan** courtyard was often used not only for the madrasa but also for many other types of building. We may thus conclude that the number of *iwans** was not a functional choice but an aesthetic one. The totally inclusive character of Muslim doctrine, tending to bring all social functions together, influenced the development of madrasa architecture, particularly when under Turkish patronage the college became politically more significant than the mosque (Pl. XLII). Thus in Iran, in Central Asia, and especially in Mamluk Egypt, the mosque was combined with the madrasa. The independent madrasa also served as a mosque. The Egyptian madrasa contained a *minbar* and even Friday noon prayers were held there (*madrasa liljuma**) (Pl. XLIII).⁴⁰

Because it was not till the later periods that all the major development of the madrasa took place, I have here confined myself only to the general problems of its origin. But one last observation is in place. The building called madrasa is not easily distinguishable from

³⁹ Creswell's article on the origin of madrasa, (note 117).

⁴⁰ Pedersen, *Op. cit.*, p. 358.

buildings used for other purposes. In Iran and Central Asia the mosque and the *madrasa*, in Egypt the mosque, the *madrasa*, and the "convent" and in Turkey the *madrasa*, the hospital, and the hostelry all seem to have developed out of the basic plan of courtyard with *iwan* *. Probably it was the very diffusion of the *madrasa* throughout Islam which was largely responsible for the spread of this plan (Figs. 32, 33).



Fig. 32.
Madrasa of Nur* al-Din*,
Damascus, the plan
(Herzfeld).

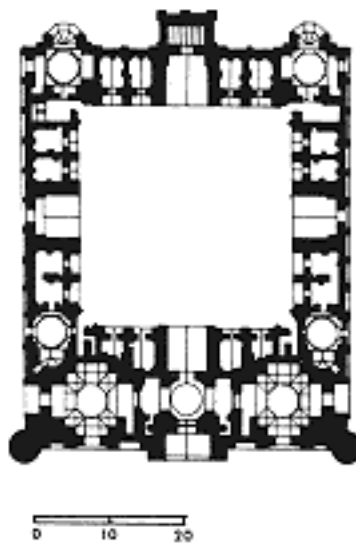


Fig. 33.
Ghiyathiyya* Madrasa, Khargird,
the plan.

The Muslim "Convent": The Ribat*, The Khanqah*, and The Zawiya*

Although the Muslim "convent", called *khanqah** or *zawiya** in later periods, is most commonly associated with the Sufi sects, it has its functional origin in the *ribat**, the fortified frontier post of the early Muslim empire.⁴¹ The word *ribat** is used in the Koran for the place where the horses were tethered in readiness for battle (Sura 8/60-62). The first *ribat**, according to the Tradition, was built by *uqba** Ibn *nafi** in the time of *umar**.⁴² On the frontiers both in Central Asia and North Africa the *ribat** was usually built by the government. In Transoxiana, for instance, Ibn Khallikan informs us that there were ten thousand of them.⁴³ The number is no doubt exaggerated, but all the same may well have been considerable, because warfare against infidels (*jihad**) was a religious duty (*fard**), so that the convents were populated in great numbers by volunteers for the holy war. The warriors in a *ribat** were under the leadership of a sheikh, who might be a famous scholar. The zeal of the *mujahidin** favoured the growth of religious organizations among them and the missionary character of the frontier posts attracted volunteers to them. As early as the tenth century we find the word *khanqah** designating a Sufi sect and used as a synonym of *ribat**.⁴⁴

The *ribat**, being fortified, also served from an early period as a caravan post and when its primary function as a military strongpoint for religious conquest and missionary activities ceased to be important, it was increasingly used as posting house or caravanseray.

41 Marçais, G., *EI*, Article '*ribat**', vol. III, pp. 1150-53.

42 From Tarih-i Khulefa quoted by Köprülü, F., "*ribat**", *Vakıflar Dergisi*, II (1942), p. 268.

43 For examples see Köprülü, *Op. cit.*, p. 271.

44 For the meaning of the terms *ribat** and *khanqah** see: Trimingham, J.S., *The Sufi Orders in Islam*, Oxford, 1971, pp. 167f. Also Köprülü, F., *Op. cit.*, p. 273.

An important early example is the *ribat** of Susa in Tunisia (Fig. 34). A fortified enclosure of two storeys, it consists of small cells surrounding a central courtyard, a mosque at the upper level, and at one corner of the enclosure wall a minaret which evidently served also as a watchtower.⁴⁵ On the Central Asian frontiers the typical *ribat** was a mud-brick building with an open courtyard, and remains of these are scattered all over Central Asia.⁴⁶

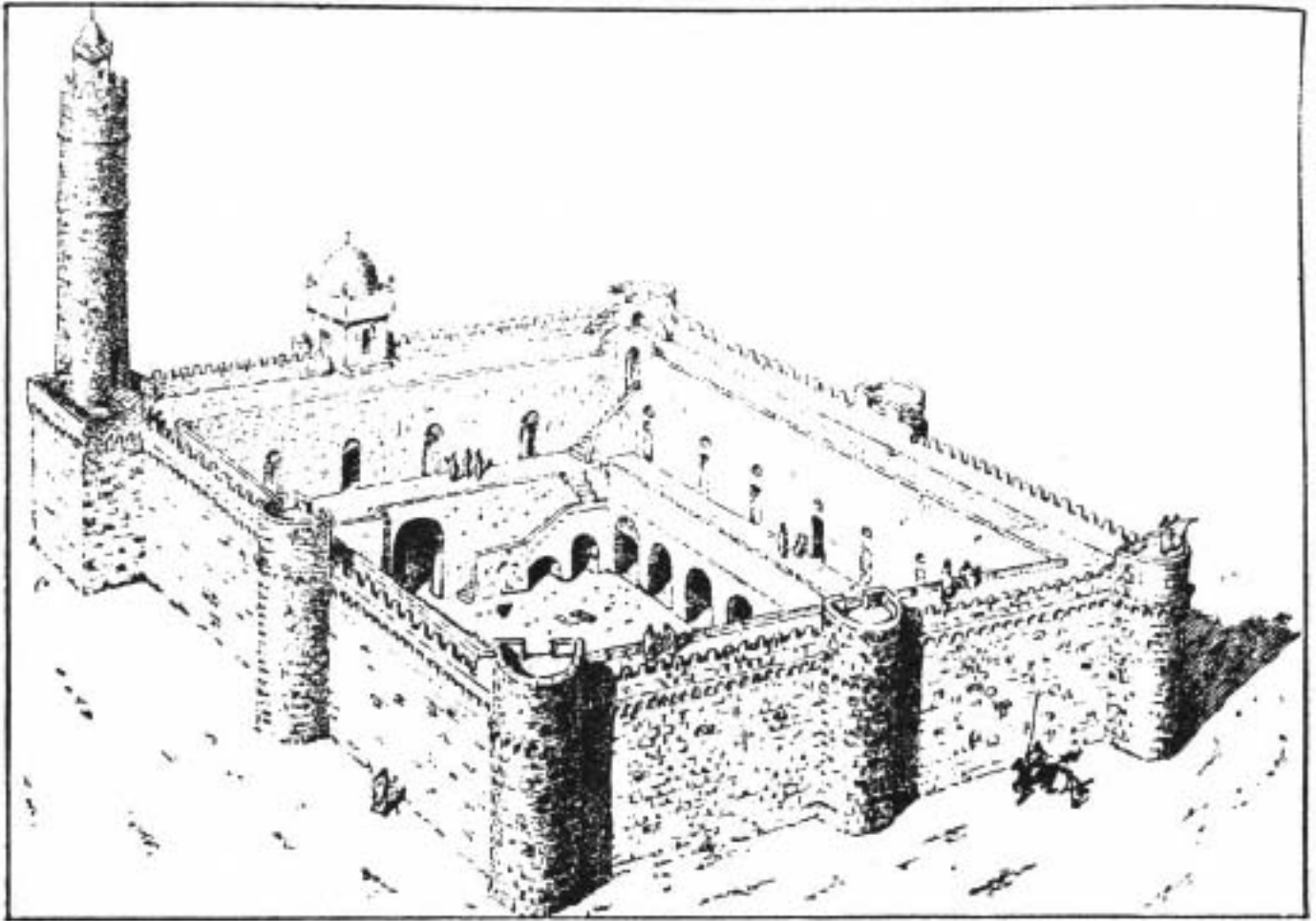


Fig. 34.
The Ribat*, Susa, Axonometrical view (from Marçais).

Although the caravanseray model of *ribat** persisted and was used occasionally as a *khanqah** in later centuries⁴⁷ the later convents do not necessarily have a courtyard. It may well be that the ordinary house of Khorasan and Central Asia was as much the model for the convent as for the *madrasa*. An early example of a *khanqah**, now largely destroyed, is the *Turbat-e Shaikh jam** in eastern Khorasan. A storeyed building, it is composed of a series of rooms around a domed central hall. A mausoleum is connected to it, the whole thing being of the twelfth century.⁴⁸ Similar buildings of smaller dimensions are to be found in

⁴⁵ Lezine, A., *Le Ribat de Sousse*, Tunis, 1956.

⁴⁶ In our present knowledge, there is no way to indicate whether the remains of an open-courtyard building belong to a former *ribat** or a caravansery, since the latter function must have followed the former, in most cases.

⁴⁷ Alara Han in Southern Turkey, from the thirteenth century, is a possible example. See, Lloyds, S. and Rice, D.S., *Alanya*, Ankara, 1964.

⁴⁸ Diez, E., *Churasanische Baudenkmaeler*, Berlin, 1918, p. 78.

Anatolia, where numerous Sufi sects of Khorasanian origin played an important part as agents of conquest and Islamization.⁴⁹

Since both the *madrasa* and the *khanqah* * correspond to a similar organization, a sheikh and his followers in the one case, or a *faqih* * and his students in the other, they tend to have a similar architecture. This was especially the case in Egypt, where in Mamluk architecture any characteristic differences of plan between *madrasa*, *khanqah* *, and mosque almost vanished. The best preserved and among the oldest Mamluk examples of a *khanqah* * is that of the Sultan Baybars al-Jashnikir in Cairo, built in 1306 or 1307 to 1310, which has achieved a new planning synthesis and a functional transformation by combining the mosque, the mausoleum, and the *khanqah* * within the framework of a four-*iwan* * *madrasa*. One of the *iwans* * is used as a *masjid*, while on one side of the courtyard there are several storeys of dervish cells. The Sultan's mausoleum is reached through a corridor⁵⁰ behind the large *iwan*. The mausoleum of the founder is the central element of a Mamluk complex, of which the silhouette is enriched by the addition of picturesque minarets.

A less spectacular but similar development took place in early Ottoman architecture, where the buildings seem to retain a spiritual kinship with the original convents of Central Asia. In the fourteenth and fifteenth centuries the early Ottoman sultans, themselves members of *akhi* * associations, built the so-called *zawiya* *-mosques which served as mosques and meeting places of an association and possibly also as guest houses. Well-known examples are the *zawiya* *-mosques of Murad I, Bayazid I, Mehmet I, and Murad II, all in Bursa. The main plan in these buildings is composed of chambers and *iwans* * surrounding a central domed space, one of the *iwans* * being used as a *masjid*.

In the larger, more developed brotherhood (*tariqa* *) the abode of the sheikh on which it centred was called *astana* *. This generally included the tomb of the founder (*pir* *). The larger convents were called *khanqah* * or *tekke* while the *dargah* was a smaller building for meetings and for divine service (*dhikr*), while if it served travellers as well it became a *zawiya* *.⁵¹

In North Africa the older *ribat* *, once an outpost for conquest, later housed a mystic brotherhood. These after the thirteenth century increased their activities in all North African countries.⁵² Yet there are very few remaining examples of the medieval *zawiya* * in North Africa and those which do still stand are all in Morocco, where the *jihād* * lasted longer than elsewhere. The North African *zawiya* * seems to have taken shape around the tomb of a sheikh and is not architecturally on a well defined plan. It consists of cells around one or more courtyards, a *masjid*, the sheikh's house, rooms for visitors and travellers, and other service buildings all brought together in one large complex. In Morocco the mausoleum of abd * al-Haqq, the founder of the Marinids, later became the centre of a *zawiya* *, as did his son's mausoleum in Chella.⁵³ Later *zawiya* * complexes in the Maghrib followed the same pattern of development. One example is the great *zawiya* * of

49 Barkan, Ö.L., "Osmanlı imparatorluğunda* bir iskân ve kolonizasyon metodu olarak Vakıflar ve Temlikler. I. istila* devrinin kolonizatör Türk dervişleri* ve zaviyeler", *Vakıflar Dergisi* II (1942), pp. 255-353. Kuban, D., "Anadolu-Türk şehri*. Tarihi gelişmesi*, sosyal ve fiziki özellikleri üzerinde bazı gözlemler", *Vakıflar Dergisi*, VII (1968), pp. 58ff.

50 Creswell, *MAE II*, pp. 249-53.

51 Gölpınarh, Abdülbâki, *Türkiyede Mezhepler ve Tarikatler*, İstanbul, 1969, p. 187.

52 Marçais, *EI*, article 'Ribat', p. 1152.

53 Marçais, *L'Architecture Musulmane d'Occident*, Paris, 1954, p. 218f.

sidi * Bin suleaiman* aljazuli* in Marrakesh, built in the second half of the sixteenth century.⁵⁴

In India shortly after the foundation of the Sultanate of Delhi "there was a *khanqah**, a *jamaatkhana**, a *zawiya** in every corner, the entire country was studded with them".⁵⁵ The *zawiya** in India seems to have been smaller than that in North Africa, a building for the sole purpose of gathering the mystics, even founded perhaps by an individual sheikh and his followers. The Indian *khanqah**, on the other hand, was more like the North African *zawiya**, consisting of a large meeting hall-the *jamaatkhana**-rooms for residents and travellers, also perhaps the sheikh's dwelling, an arcaded courtyard, then a kitchen and service quarters.⁵⁶ In this form the *jamaatkhana**, "a large room where all the disciples slept, prayed, and studied sitting on the floor" and where the travellers could find refuge seems to have been a specifically Indian development. The *khanqah** of the Chisti sect, the most sober of all, is particularly described as consisting of a single *jamaatkhana**.

In countries where the Conquest and Islamization came gradually as in India and Anatolia, the *khanqah** or the *zawiya** was founded by the emir or the sultan himself and the mystic orders were given land for their upkeep. They served the same purpose as the earlier *ribat** or frontier post or the small posting house and later became the nuclei of settlements. Moreover the importance of mystic orders in the spiritual life of the common people meant that they played a leading part in the establishment of the early social structure of nascent Muslim states.⁵⁸

⁵⁴*Ibid.*, p. 386f.

⁵⁵ Nizami, Kh. Ahmad, "Some aspects of khanqah life in Medieval India", *Studia Islamica*, VIII (1957), pp. 51-69.

⁵⁶*Ibid.*, p. 58.

⁵⁷*Ibid.*, p. 53.

⁵⁸ Trimingham, J.S., *Op. cit.*, pp. 218-44.

Catalogue of Illustrations

Figures in the text

Egyptian and North-African mosques:

1. *Al-Azhar* - Cairo - The original plan (Cresswell).
2. The Great Mosque - Algiers - The plan (Marçais).
3. The mosque *alqarawiyyin* * - fas* - The plan (Marçais).
4. The mosque - Tinmal - The Plan (Marçais).
5. The mosque - mansurah* - The Plan (Marçais).
6. Baybars - Cairo - The Plan (Cresswell).
7. *Madrasa*-Mosque of qalaun* - Cairo - The plan (Cresswell).
8. *khanqah** and Mausoleum of Sultan Baybars aljashankir*, Cairo, the plan (Cresswell).
9. *Masjid-i juma** - isfahan* - The possible reconstruction of the saljuq* period.
10. *Masjid-i jami** - gulpaygan* - The plan (survey, Godard).
11. *musalla** of Talhatan baba* - Near old Marw - The plan (Pugchenkova).
12. Shrine of the *imam** *alrida** and the mosque of Gawhar shad* - Mashhad - The plan.
13. The Blue Mosque - tabriz* - The plan (survey, Pope).
14. *Masjid-i shah** - isfahan* - The plan (survey, Pope).
15. *khirqi** *Masjid* - Near Delhi - Axonometrical view and plan (from Brown).
16. *jami** *Masjid* - ahmadabad* - Axonometrical view (from Brown).
17. *jami** *Masjid* - fathpur* Sikri* - The plan (Havell).
18. *jami** *Masjid* - gulbarga* - The plan (Havell).

Turkish mosques:

19. *Ulucami* -divrigi* - The plan (Gabriel).
20. The mosque of *ucserefeli** - Edirne - The plan.
21. The mosque of Mehmed I (*yesil** *Cami*) - Bursa - The plan (the porch was not completed, dimensions hypothetical).

22. The Complex of Süleymaniye, Istanbul, The general plan (Goodwin): 1. The hospital; 2. The Public Kitchen; 3. The Hostel; 4. The School of Medicine; 5. *Madrassa*; 6. *Madrassa*; 7. The Quran School; 8. Fountain and Water distribution; 9. Outer courtyard; 10. Latrines; 11. The Courtyard; 12. The Prayer Hall; 13. The Mausoleum of Süleyman I; 14. The Mausoleum of Hürrem Sultan; 15. The Guardian of the Mausoleums; 16. *Madrassa*; 17. *Madrassa*; 18. School of Hadis; 19. The Bath; 20. Sinan's Tomb.

23. The mosque of Sultanahmet - Istanbul - Axonometrical view (Nayir).

24. The mosque of Sultan Selim II - Edirne - Axonometrical view. (Kuban-Kuzucular)

Other religious buildings:

25. The Dome of the Rock (*Qubbat alsakhra**) - Jerusalem - Axonometrical view.

26. Tomb of alamberdara* at astanababa* - turkistan* - Section and plan.

27. Tombtower (*Gunbadh*) of ala* aldin* - waramin* - Section and plan (Wilber).

[< previous page](#)

page_41

[next page >](#)

28. The tomb of baba * qasim* - isfahan* - The plan (Wilber).
29. The tomb of ali* jafar* - Kayseri, Turkey - The section (Gabriel).
30. House at Marw and the *Madrassa* of yagibasan* - Tokat - The plans.
31. *Çifte Medrese* - Kayseri - The plan.
32. *Madrassa* of nur* aldin* - Damascus - The plan (Herzfeld).
33. *ghiyathiyya* Madrasa* - Khargird - The plan.
34. The *ribat** - Susa - Axonometrical view (from Marçais).

Plates

(Single dates indicate the year of completion)

Plate I

The Interior of the Mosque al-Azhar-Cairo-(970-72 A.D.).

Built by the fatimid* caliph almuizz* immediately after the conquest of Egypt and foundation of Cairo. Originally a simple columnaded hall with a courtyard, the mosque has been transformed and enlarged many times. A great teaching institution was established at al-Azhar by the Caliph alaziz* in 988/87.-(Source: Hauteceur, *Les Mosquées du Caire*, vol. II, Pl. 12).

Plate II

The Façade of the Mosque of salih altalai*-Cairo- (1160 A.D.).*

One of the last fatimid* mosques, it has a classical plan with a three-aisled *haram** and a courtyard (*sahn**) surrounded by arcades. The most interesting element of the mosque, however, is its main façade which has a portico between two projecting wings. According to maqrizi* the building was originally intended to house the head of Husain, and so become a shii* *mashhad*.-(Source: Sourdél-Thomine-Spuler, *Die Kunst des Islam*, Fig. 177).

Plate III

The Mosque of aljuyushi-Cairo-(1085 A.D.).*

Built by the famous vizir Badr aljamali*, this building is called a *zawiya** in its inscription, although it has all the elements of a mosque (domed *maqsura** and its surrounding spaces, courtyard, and minaret) and clearly served as a mosque. It may have originated as an oratory for the mausoleum of the founder. But the adjacent tomb chamber of no architectural significance, belongs to an unknown holy man, also called aljuyushi*.-(Source: Sourdél-Thomine-Spuler, *Die Kunst des Islam*, Fig. 171).

Plate IV

The Interior of the Great Mosque-Algiers (1097 A.D.?).

Founded by the Almoravid yusuf* bin tashfin*, the *haram** is a pillared hall of eleven aisles perpendicular to the *qibla* wall. Pillars instead of columns, pointed horseshoe or multi-foil arches are characteristic North African features.-(Source: S. Thomine-Spuler, *Die Kunst des Islam*, Fig. 186).

Plate V

The Ruins of the Mosque-Tinmal-(completed 1053/54 A.D.).

Tinmal was the city where Ibn Tumart, the founder of the Almohad dynasty, began to teach. The mosque has nine aisles perpendicular to the *qibla* wall, the central one being larger, and a large aisle parallel to the *qibla* wall. The *sahn* * is surrounded by a double *riwaq** on both sides. The *mihrab** is encased in a niche over which there was a minaret tower,-(Source: S. Thomine-Spuler, *Die Kunst des Islam*, Fig. 234).

Plate VI

*The Interior of the Great Mosque of Qutubiyya-marrakesh**(Mid 12th C.).

This Almohad great mosque is another example of a vast pillared hall. As is seen in this perspective of an aisle, the articulation of the interior space was not of primary concern for North African builders.-(Source: Marçais, *l'Architecture Musulmane d'Occident*, p. 229).

Plate VII

*The Mosque of almaridani**-Cairo-(1338-40 A.D.).

This is a classical example of a columnar mosque with a large *mihrab** bay covered by a dome. The plan of this *haram** was common in Eastern Islam in the 12th-14th centuries. Except for the great mosque of azzahir*, the great domed *mihrab** bay was not an Egyptian practice.-(Source: Wiet, *The Mosques of Cairo*, Fig. 15).

Plate VIII

*The Mosque of Sultan almuayyad**-Cairo-(1415-20 A.D.).

The main prayer hall consists of three aisles parallel to the *qibla* wall. The two minarets of the mosque were built over the adjacent gate *bab** Zuweila. The decoration of the interior with its marble incrustation, stucco lattice work and colored glass windows represents the late mamluk* style at its best.-(Source: Wiet, *The Mosques of Cairo*, Fig. 47).

Plate IX

*The Courtyard of the Masjid-i juma**-isfahan*, (Begun Eleventh century).

Over the remains of an older *mosque* of Arab type, this is the oldest four-*iwan** courtyard mosque of the saljuq* period. Its famous *maqsura** dome and northern domed chamber were built during the reign of Malik shah*, but the four-*iwan** courtyard may have been completed in the early 12th century. Except for the *qibla iwan**, however the actual design of the courtyard is from the 15th century and after.-(Source: Scherrato, *Monuments of Civilisations. Islam*, p. 67).

Plate X

*Masjid-i juma**-Ardistan*-(1158-60 A.D.)

Whether a kiosk mosque, as Godard suggests, or not, the four-*iwan** courtyard building is a most characteristic example of the saljuq* period. The use of brick in its purest form gives to the building its geometrical clarity.-(Source: Pope, *Survey IV*, p. 319).

Plate XI

*Masjid-i jami *-Waramin* (1322-26 A.D.).*

Built for the ilkhanid* Sultan Abu said*, this is a perfect example of the four-*iwan** courtyard mosque with a domed *maqsura**. The minarets have been placed over the north portal, as is seen in Yazd. The brick construction seems to have all the perfection of the saljuq* period.-(Source: Sourdel-Thomine, Spuler, *Die Kunst des Islam*, Fig. 257).

Plate XII

Masjid-i ali Shah-tabriz*-(1310-1320 A.D.).*

This is a grandiose example of a single *iwan** mosque, although it was surrounded by a *madrasa* and *khanqah** and had an immense courtyard.-(Source: Sourdel-Thomine-Spuler, *Die Kunst des Islam*, Fig. 257).

Plate XIII

The Mosque of bibi Khanum-Samarkand-(1399-1404 A.D.).*

The construction of this mosque was begun by timur* himself. Essentially of brick, it had a marble revetment at lower levels of the walls and over the portals; all the columns were of stone or marble. All bays were covered by domes, and minaret towers flanked the entrance portal as well as the main *iwan**. Four other minarets were placed at the corners of the composition. This was a building which in all probability much influenced the development of later Indo-Muslim Architecture.-(Source: Pugatchenkova, *Samarkand and Bukhara*, Fig. 35).

Plate XIV

The Mosque of Gawhar shad-Mashhad-(1406-1417/18 A.D.).*

The building was erected adjoining the tomb of the *imam* alrida**, as a part of the great if shrine complex. It is yet another classical example of a four-*iwan** courtyard mosque of the Turco-Iranian world in Eastern Islam, the type being then well established.-(Source: Pope, *Survey IV*, p. 430).

Plate XV

The Interior of the Blue Mosque-tabriz-(1465 A.D.).*

The *Masjid-i kabud** or the Blue Mosque (so called because of its blue-dominated faience decoration) was built for the daughter of Jahan shah* of the Qara-Qoyunlu dynasty. Its plan is unique in Iranian architecture, but it repeats the main scheme of the funerary buildings of the timurid* domain in which a central domed space is surrounded by secondary spaces whereas a second domed room served as the tomb chamber. Here the surrounding secondary spaces are open to the centre and constitute a continuous ambulatory around it. Although known as a *masjid*, the disposition of the plan makes difficult to accept this building as a simple mosque.-(Source: Sourdel-Thomine-Spuler, *Die Kunst des Islam*, Fig. 323).

Plate XVI

*General View of the Masjid-i shah *-Isfahan*-(compl. after 1628 A.D.).*

The mosque of abbas* I, built by the architect Abu lqasim*, clearly shows by the arrangement of its plan that the core of the Iranian mosque was the open courtyard. The main sanctuary consists of the domed *maqsura** and the two-aisled halls adjacent to it. On each side of these halls there are two elegant courts surrounded by arcades. The entrance of the *Masjid-i shah** is the culminating point of the long perspective of meidanshah*-(Source: Vogt-Göknil, *Mosquées*, Fig. 99).

Plate XVII

The Interior of the Mosque of nizam aldin* Awliya-Delhi-(1320 A.D.).*

nizam* aldin* was one of the great influential Sufis of the early Muslim Period. The mosque was built before his death (1325 A.D.). The mosque was called *jamaatkhana** probably indicating that it was used also as a gathering place for the Sufis.-(Source: Brown, *Indian Architecture*, Pl. CL, Fig. 2).

Plate XVIII

The Interior of the jami Masjid-Mandu-(1440 A.D.).*

Vast pillared halls covered by vaults retain, in their religious feeling for space a close affinity to the earliest mosques. Yet the local tradition of stone carving produces a stylistic symbolism that seems to neutralize the Islamic character of the building.-(Source: Havell, *Indian Architecture*, Fig. 66b).

Plate XIX

The Façade of the Prayer Hall of Atala Masjid-Jaunpur-(1408 A.D.).

The triple archway and the great central *iwan** undoubtedly indicate that the design was influenced by a memory of the Central Asian *musalla** where the covered part was nothing but a *maqsura**. The use of the term *maqsura** for the façade screen may be a reminiscence of the older arrangement.-(Source: Havell, *Indian Architecture*, Fig. 68a).

Plate XX

The Façade of jami Masjid-ahmadabad*-(1424 A.D.).*

The articulation of the Façade of the mosque perfectly corresponds to the disposition of the haram*. Yet, the massive sobriety of the central gateway hardly bears out the airy structure behind. Thus, while the symbolism of a traditional mosque formed the exterior, the interior was left to the fantasies of local masters.-(Source: Havell, *Indian Architecture*, Fig. 70a).

Plate XXI

The maqsura of the jami* Masjid-fathpur* Sikri-(Begun 1570 A.D.).*

The great mosque of Akbar's capital was influential in the development of the later Mughal mosque architecture, not only by its form and dimensions (it covers an area of c. 143 × 180 meters) but also by the richness of material used and the quality of workmanship in its execution.-(Source: Volwachsen, *Inde Islamique*, Fig. 32).

Plate XXII

*The Façade of the badshahi * Mosque-Lahore-(1675 A.D.).*

Built during the reign of Aurangzab, the badshahi* mosque follows the example of the great mosque tradition as set by the fathpur* Sikri and Delhi mosques. With its triple white domes, the delicate texture of its façade (here called a *maqsura**), and the richness of materials the *liwan** is a classic of the Mughal period.-(Source: E. Lewis (ed.) *The World of Islam*, p. 114).

Plate XXIII

The Interior of the moti Masjid-agra* Fort-(1648-53 A.D.).*

Built for shah* jahan*, this is the most famous of Indian palace mosques. The *liwan** consists of three aisles parallel to the *qibla* wall, each seven bays wide, and is crowned by three domes, symmetrically placed on alternate bays. The large courtyard surrounded by arcades and an ablution basin at the center. The whole interior of the building, the prayer hall as well as the courtyard, the walls, the floors, the domes, and the decorative *chatri* baldachins over the roofs are all covered with marble contrasting with the red-stone wall of the exterior. This sensitivity for material and the impeccable geometry of the whole configuration make the *moti* Masjid* (The Pearl Mosque) one of the best specimens of the unique qualities of Mughal architecture.-(Source: Vogt-Göknil, *Mosquées*, Fig. 140).

Plate XXIV

The jami Masjid-bidjapur*-(1576 A.D.).*

The mosque was built by ali* shah* of the adilshahi* dynasty. The large dome covering nine bays rises from the center of the *liwan**, a pillared rectangular hall consisting of forty-five (5 × 9) square bays, all covered by small domes. The elaborate pierced square decorative drum around the base of the dome is characteristic of the region. The cape of the dome ends in a crescent as usual in buildings of this dynasty.-(Source: Browne, *Indian Architecture*, Pl. XLIX, Fig. 1).

Plate XXV

Ulucami (The Great Mosque)-Divrigi-(1228/9 A.D.).

Built by ahmad* shah* of the Mangujak Dynasty and his wife, the building is composed of a mosque proper, an adjacent hospital (*sifahane**), and a tomb as a single rectangular block. Its carved stone decoration is unique in the history of Islamic art for its originality and the variety of its sources.-(Source: Archive of the Institute of the History of Architecture and Restoration, Istanbul Technical University).

Plate XXVI

The Interior of the Ulucami-beysehir-(1297 A.D.).*

This mosque was built by the local ruler Süleyman Bey who was dependent on the saljuqs* of Konya. The post and beam structure seen here was employed in many important mosques of the 13th and 14th centuries. Generally the enclosing walls were in stone and the *mihrab** bay was crowned by a dome. The balcony on the right is a *maqsura**.-(Source: Vogt-Göknil, *Mosquées*, Fig. 140).

Plate XXVII

*The Interior of yesil * Cami (the Green Mosque)-Bursa-(1412-19 A.D.).*

The main *iwan**, which served as the prayer space, is raised a few steps and separated by a balustrade from the central bay. It has a much praised faience decoration which covers the lower registers of the walls culminating in the beautiful faience *mihrab**.-(Source: Sourdel-Thomine-Spuler, *Die Kunst des Islam*, Fig. 379).

Plate XXVIII

The Mosque and the Complex of Süleymaniye-Istanbul-(1550-57 A.D.).

Built by Sinan for Sultan Süleyman the Magnificent, the mosque is the center of the most complete social and religious complex consisting of four *madaris** of different grades, a school of medicine, a school for the teaching of *hadith**, a Koran school, a library, a hospital, a public kitchen, a hospice, a bath, mausoleums of Süleyman the magnificent and his wife, and some service buildings.-(Source: Archive of the Institute of the History of Architecture and Restoration, Istanbul Technical University).

Plate XXIX

The Mosque of Sultanahmet-Istanbul-(1609-1616 A.D.).

Built by the architect Mehmed aga* for Ahmet I, together with a *madrasa*, a public kitchen, a hospice, a hospital, a covered bazaar (*arasta*), a Koran school and the sultan's mausoleum. The prayer hall is covered by a central dome abutted by four half domes and small corner domes. It is the only mosque with six minarets; these emphasize the centralized structure of the prayer hall and help to integrate the courtyard visually with it.-(Source: Archive of the Institute of the History of Architecture and Restoration, Istanbul Technical University).

Plate XXX

The Interior of the Mosque of Selimiye-Edirne-(1569-75 A.D.).

Built for Sultan Selim II, by Sinan, in the second most important city of the Empire. It is the final expression of the monumental synthesis of Ottoman architecture, and magnificently served the purpose of glorifying the name of the sultan-caliph as the symbol of a socio-political system based on Islam.-(Source: Reha Güney, photographer, Istanbul).

Plate XXXI

Interior of the Mosque of Sokollu-Istanbul-(1577 A.D.).

A subtle work of Sinan, the great master of the sixteenth century, the mosque has a totally unified space of prayer which is surrounded by low galleries for women. The tiling of the *mihrab** wall is among the finest examples of the period.-(Source: Archive of the Institute of the History of Architecture and Restoration, Istanbul Technical University).

Plate XXXII

The Mosque of Mihrimah Sultan-Istanbul-(1565 A.D.).

This mosque of the daughter of Süleyman the magnificent, built by Sinan, is composed of a rectangular prayer hall covered by a central dome and three small domes on each side.

The large courtyard is surrounded by arcades and student cells.-(Source: Archive of the Institute of the History of Architecture and Restoration, Istanbul Technical University).

Plate XXXIII

Qubbat assakhra *-Jerusalem-(685/6-692 A.D.).

This earliest memorial of Islam is symbolic not only of the Prophet's ascent to Heaven, but also of the syncretism of the Islamic culture of the Umayyad Period which so radically adopted the previous traditions of the Near East.-(Source: Glück-Diez, *Die Kunst des Islam*, p. 143).

Plate XXXIV

The Tombs called Saba banat*-fustat*-(1010 A.D.).

This group of tombs is the earliest dated funerary complex in Egypt and North Africa. Small domed square chambers with octagonal drums (c. 6 meters in diameter). A square enclosure (now destroyed) surrounded each tomb. They probably had a stucco decoration. In one of them a small *mihrab** was found.-(Source: Creswell, *MAE I*, Pl. 34/c).

Plate XXXV

Tomb tower of piri alamdar*-damghan*-(1027 A.D.).

The idea of memorial came to Islam through the example of earlier Christian practice, whereas the tomb-tower was introduced from the East and had strong pagan connotations. The visual impact of the monumental mausoleum must have been important in spreading the cult of saints.-(Source: Pope, *Survey IV*, Pl. 339b).

Plate XXXVI

The Mausoleum of gomec Khatun*-Konya-(13th Century?).

This is one of the few extant examples of the *iwan** tombs. The stone underground funerary chamber is slightly raised above ground level so as to constitute a plinth for the brick *iwan** which served as an oratory.-(Source: Archive of the Institute of the History of Architecture and Restoration, Istanbul Technical University).

Plate XXXVII

*The tomb of Sultan qalaun**-Cairo- (1284-85 A.D.).

Although Sultan qalauns* mausoleum is not a common building, it is a good example of the interior of a tomb chamber where the cenotaph (*lahd*) is placed at the centre surrounded by a wooden screen (*maqsura**). An ambulatory was thus provided around the *qabr*-.-(Source: S. Thomine-spuler*, *Die Kunst des Islam*, Fig. 290).

Plate XXXVIII

The Shrine of the shiite imams*-kazimain**, near Baghdad.

The shrine of two imams* of the shiite* sect of the *ithna* ashariya**, the seventh musa* alkazim* (d. 802 A.D.) and the ninth Muhammad djawad* (d. 804 A.D.), is a double domed tomb building flanked by minarets and enclosed within a large courtyard. The foundation

date of the original tombs is not known. But it could be from the buyid * period. The tombs were destroyed and burned several times. The actual complex may have taken shape from the early sixteenth century onward. The domes and roofs of the minarets were covered with gold foil in the nineteenth century.-(Source: Lewis, *The World of Islam*, p. 115).

Plate XXXIX

The Shrine of khwaja abu* nasr* pars**-Balkh-(1440-61 A.D.).

Dedicated to a famous Sufi sheikh, this monumental memorial consist of a square domed chamber and four iwans* on four sides, of which one was probably flanked by two minarets. As the historians of that period call it a *tekke* (convent), it may have served, with the addition of some auxiliary buildings, as a Sufi convent. According to Golombek the tomb of the saint is situated before the NE *iwana**, under a platform.-(Source: Scherrato, *Monuments of Civilisation. Islam*, p. 107).

Plate XL

Çifte Medrese-Kayseri-(1205 A.D. and after).

The so-called *Çifte Medrese* consists of two buildings: a hospital built in 1205 and a school of Medicine (*Madrasa of ghiyathiyya**) which is probably contemporary though its date is unknown. Anatolian *madaris** have reduced dimensions in comparison with those in the East, but they serve very distinct purposes. Many of them are single storey buildings. In most cases they are not *qibla* oriented for prayer.-(Source: Vakıflar arsivi*, Ankara).

Plate XLI

*The Courtyard of the mustansiriyya**-Baghdad-(1233 A.D.).

Founded by the caliph almustansir* billah*, this is one of the oldest four-*iwana* madaris** to serve four rites. Architecturally it is a production of the tradition developed in Iran and further East during the saljuq* period.-(Source: S. Thomine-Spuler, *Die Kunst des Islam*, Fig. 121).

Plate XLII

General View of the Madrasa of shah sultan* husain**-isfahan*-(1710 A.D.).

Built by the safawid* Sultan shah* husain*, it is a late but classic example of a four-*iwana* madrasa* of large size. Its faience decorated dome and minarets as well as the painted decoration of the walls (all recently restored) illustrate the last phase of the great ornamental tradition of Iranian architecture.-(Source: *Iran*, p. 92).

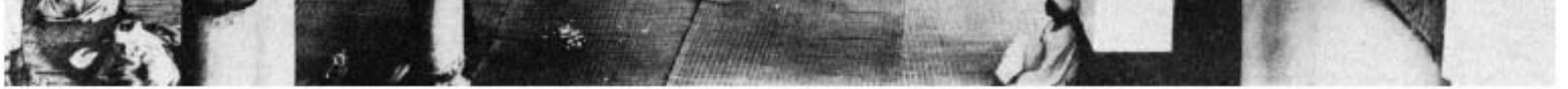
Plate XLIII

*Courtyard and main iwana** of the Madrasa of Sultan Hasan-Cairo-(1361 A.D.).

One of the most celebrated of the great mamluk* *madaris**, the building has student cells arranged on several stories. The main *iwana** to which the grandiose tomb of the founder is annexed, is used as a prayer hall. Its exterior architecture, especially the portal, is related to Syrian and Anatolian saljuq* styles.-(Source: S. Thomine-Spuler, *Die Kunst des Islam*, Fig. 294).

Plate I





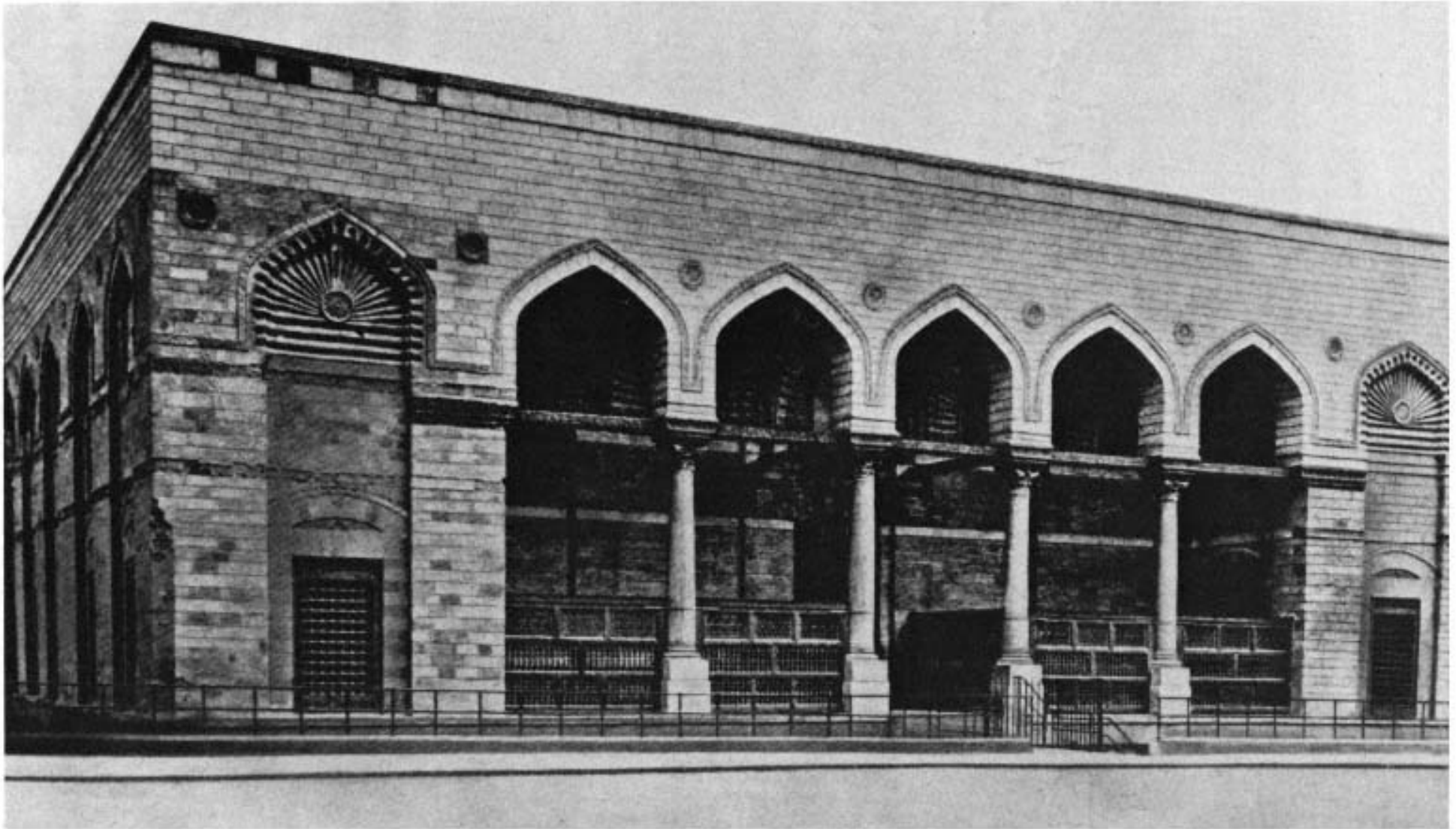
The Interior of the Mosque al-Azhar, Cairo.

[< previous page](#)

page_49-0

[next page >](#)

Plate II



The Façade of the Mosque of Salih * al-Talai*, Cairo.

Plate III



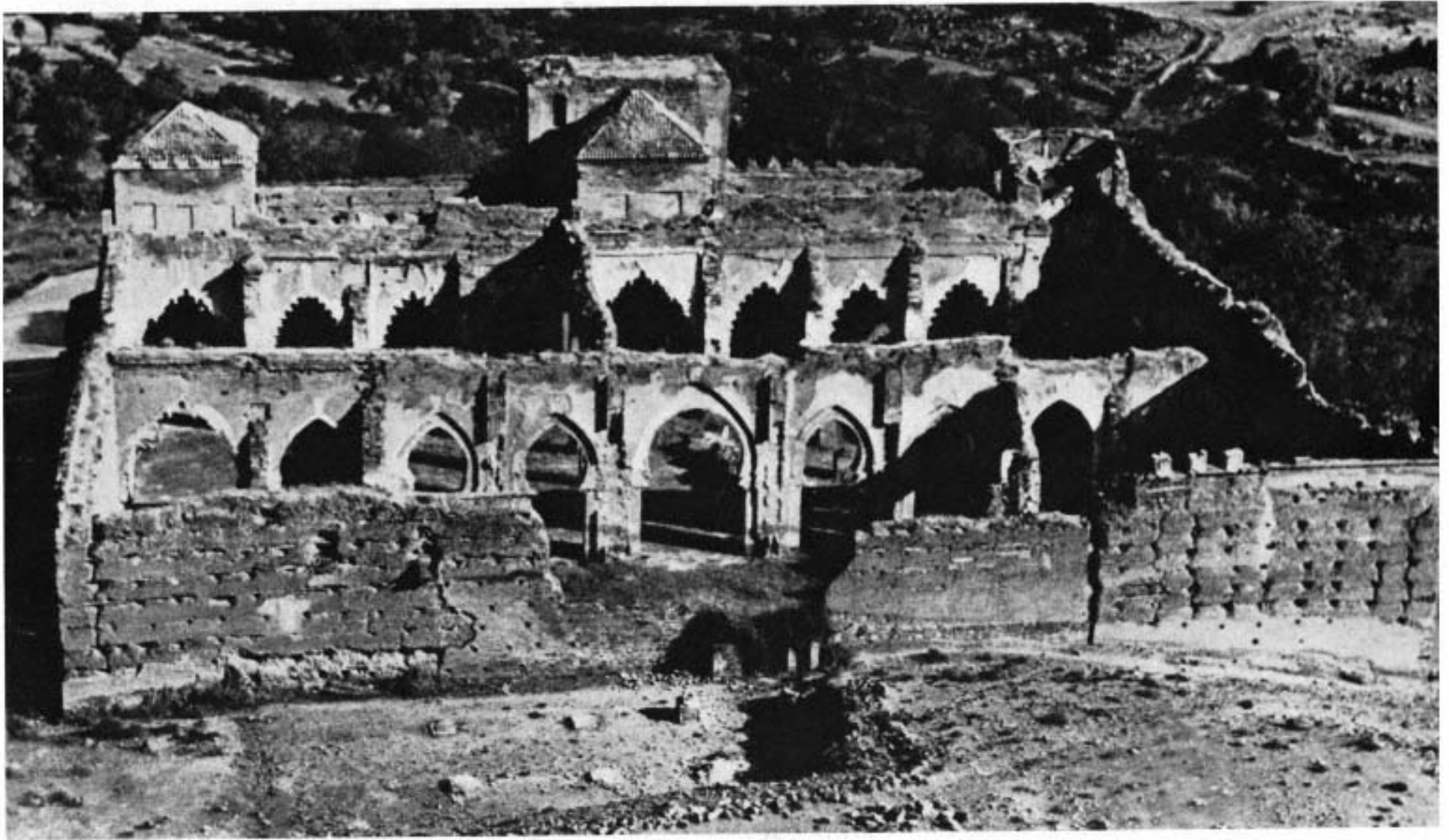
The Mosque of al-Juyushi *, Cairo.

Plate IV



The Interior of the Great Mosque, Algiers.

Plate V



The Ruins of the Mosque, Tinmal.

Plate VI





The Interior of the Great Mosque of Qutubiyya, marrakesh *.

[< previous page](#)

page_49-5

[next page >](#)

Plate VII





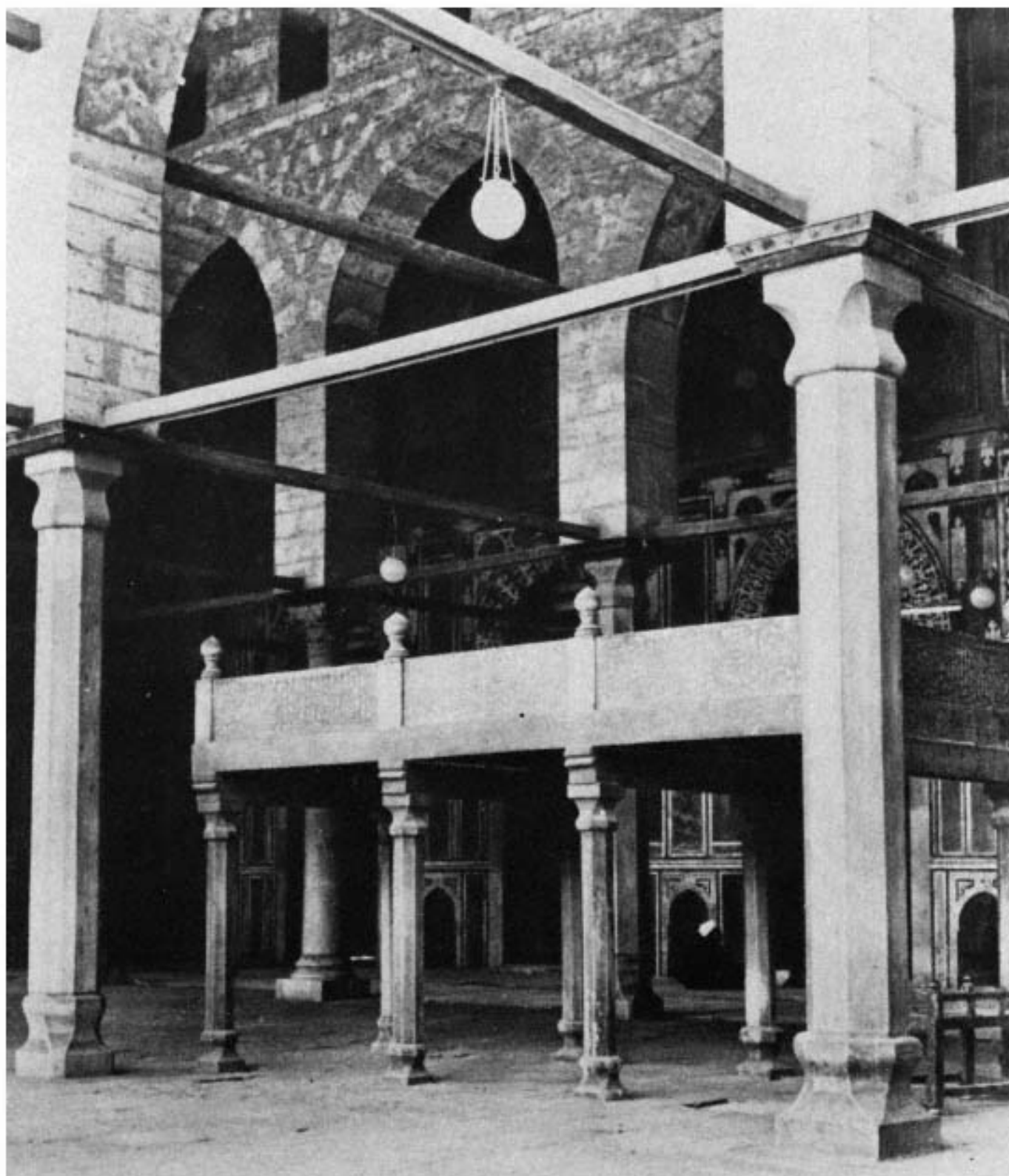
The Mosque of al-Maridani *, Cairo.

[< previous page](#)

page_49-6

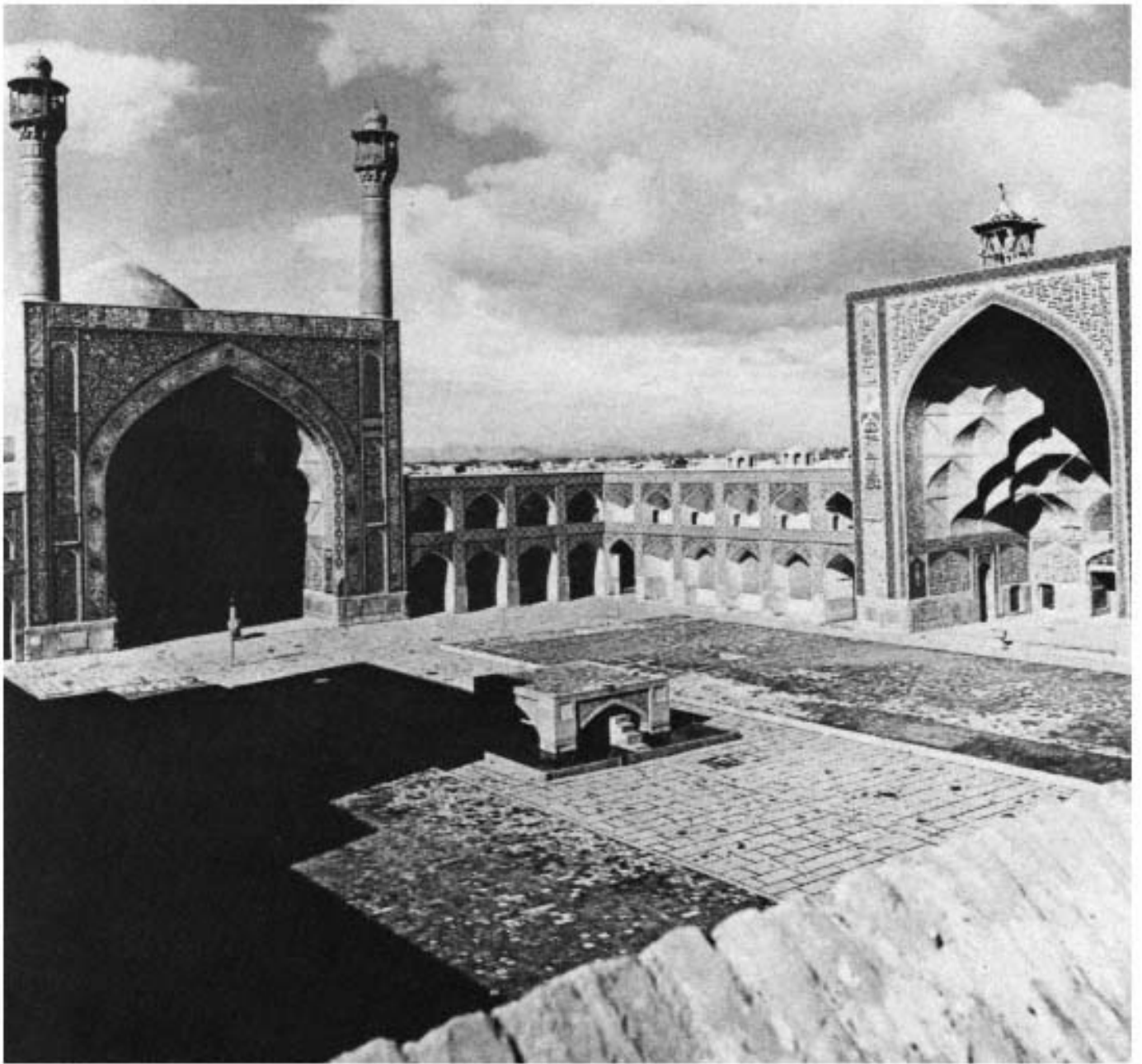
[next page >](#)

Plate VIII



The Mosque of Sultan al-Muayyad *, Cairo.

Plate IX



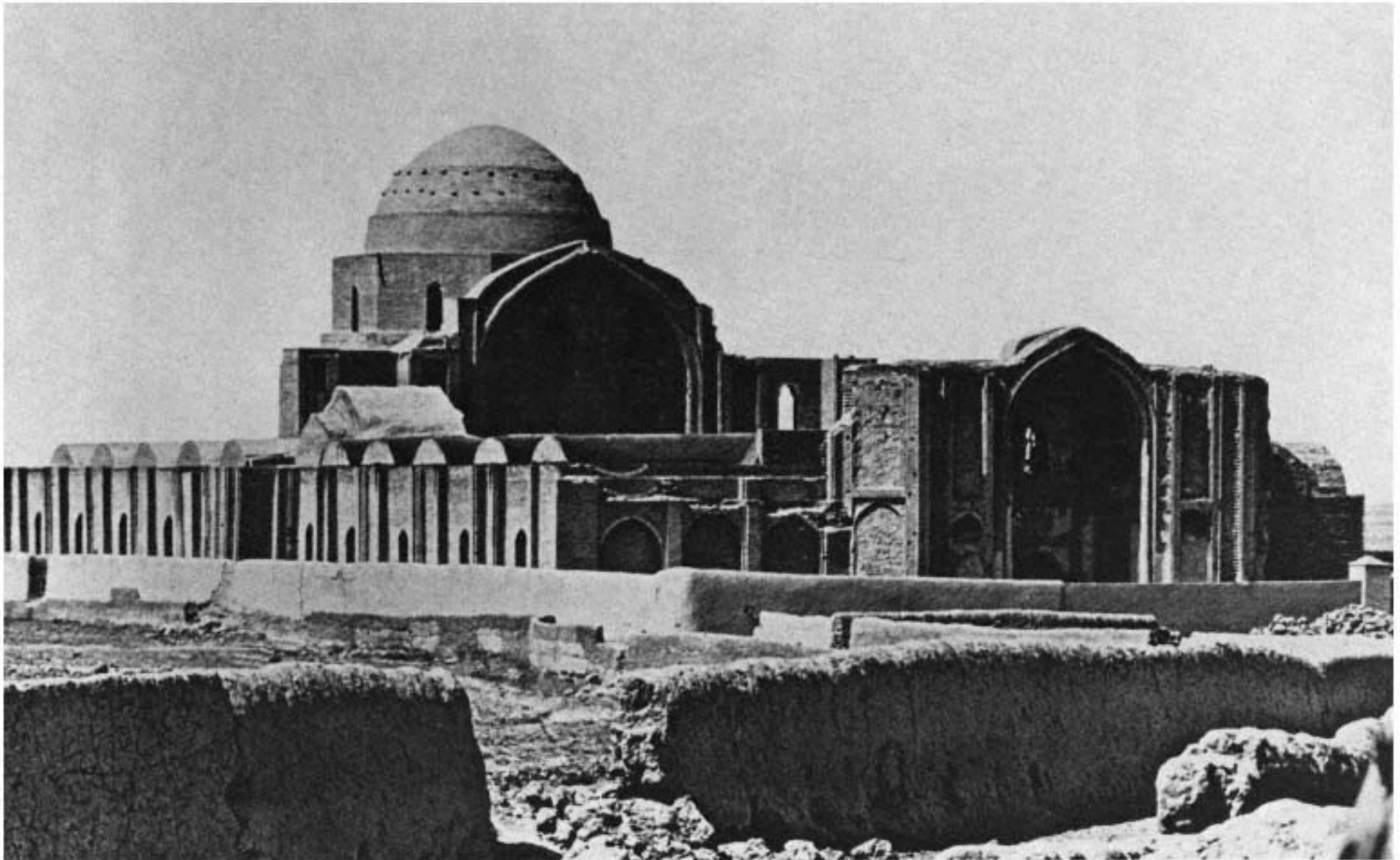
The Courtyard of the Masjid-i Juma *, isfahan*.

Plate X



Masjed-i Juma *, Ardistan*.

Plate XI



Masjed-i Jami *, Waramin*.

Plate XII





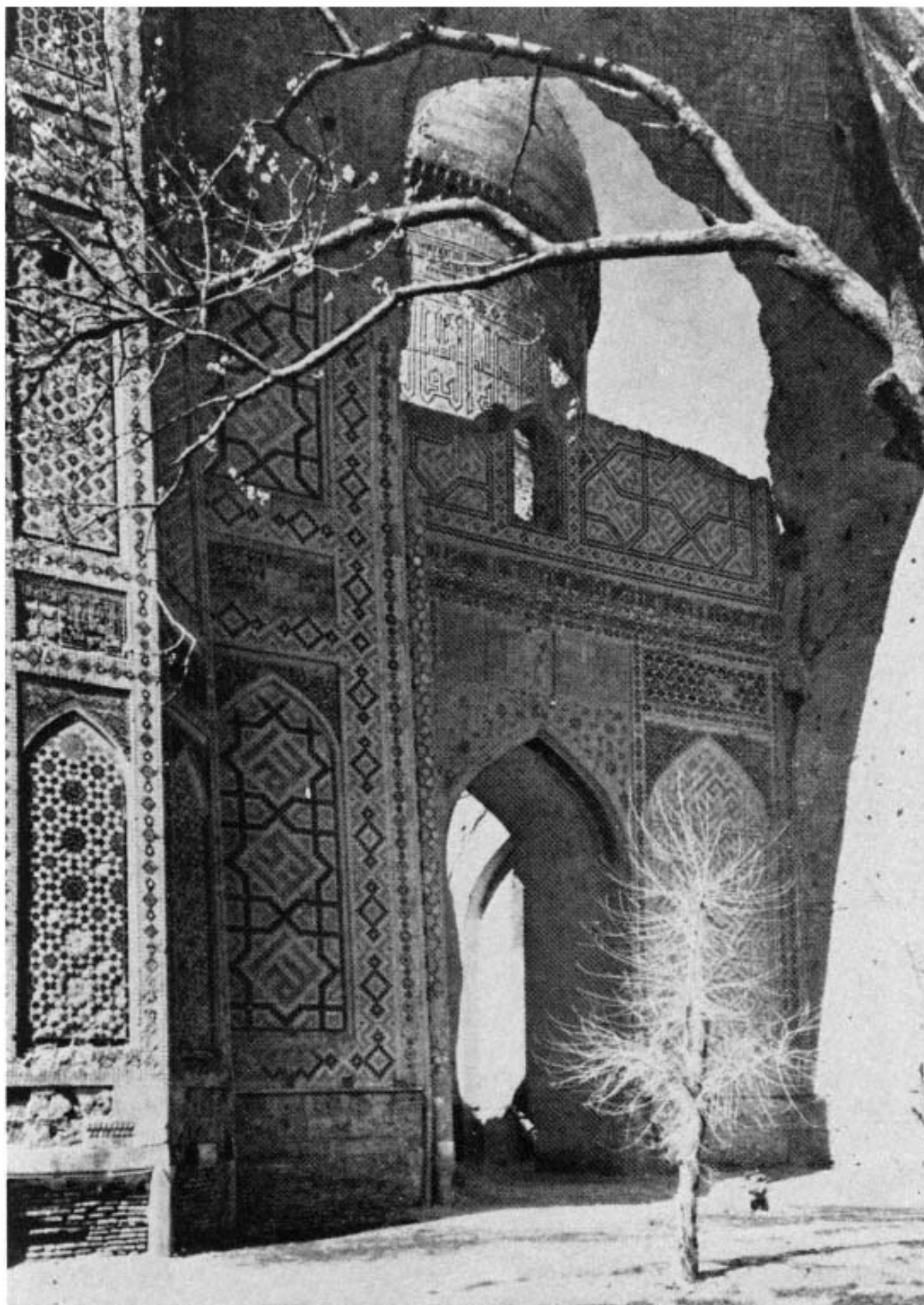
Masjid-i ali * Shah, Tabriz*.

[< previous page](#)

page_49-11

[next page >](#)

Plate XIII





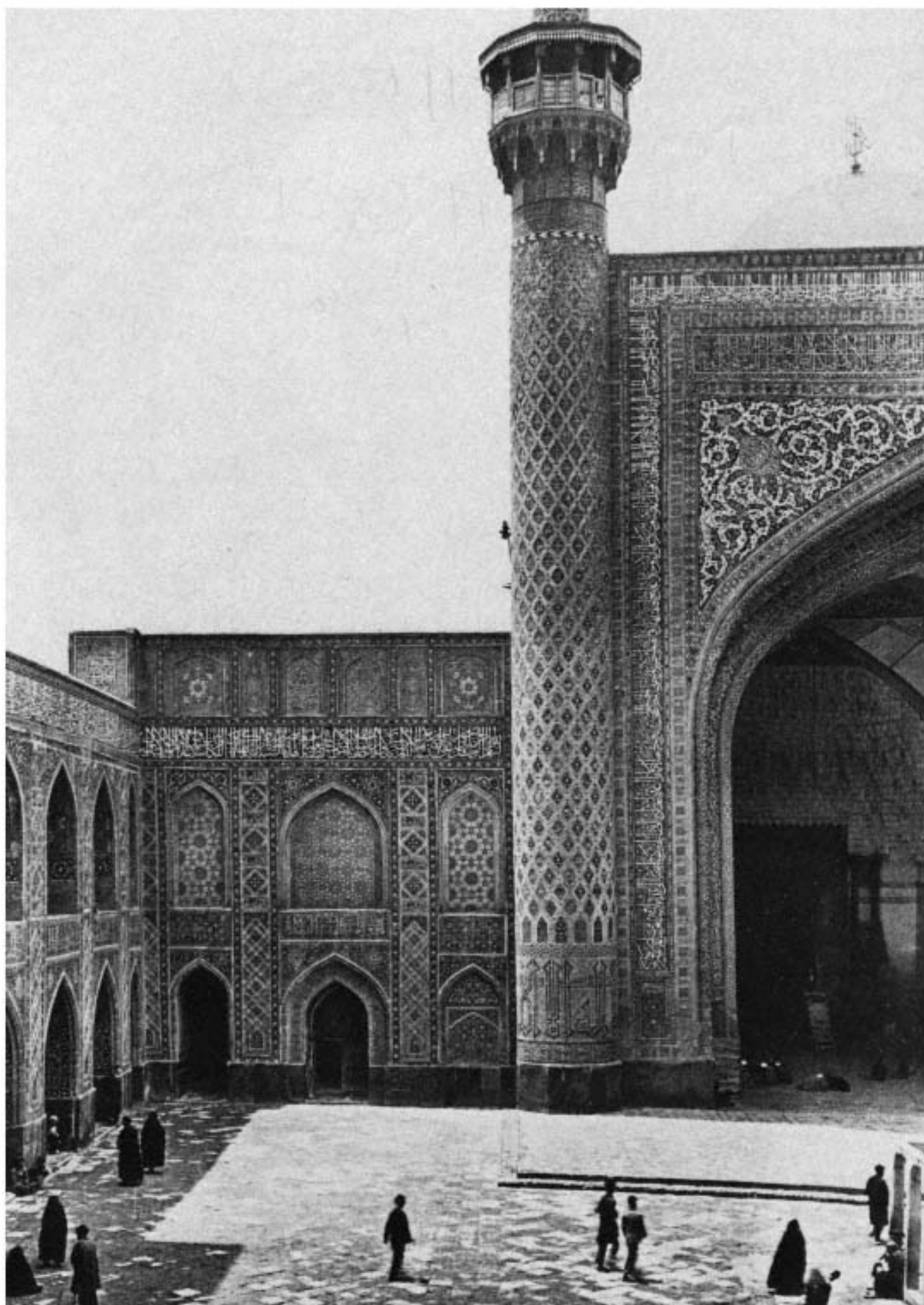
The Mosque of Bibi * Khanum, Samarkand.

[< previous page](#)

page_49-12

[next page >](#)

Plate XIV





The Mosque of Gawhar Shad *, Mashhad.

[< previous page](#)

[page_49-13](#)

[next page >](#)

Plate XV



[< previous page](#)

page_49-14

[next page >](#)

Plate XVI





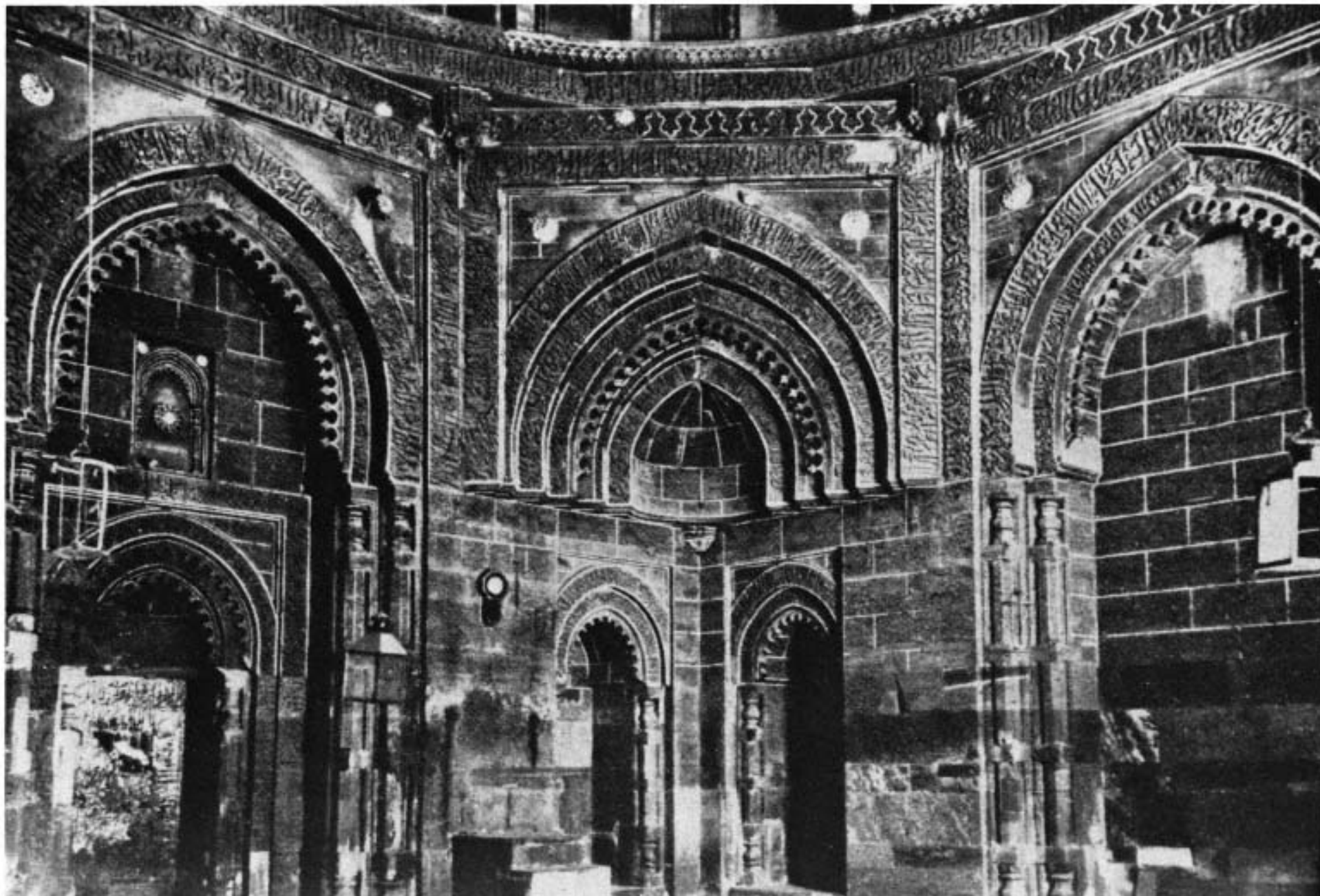
General View of the Masjed-i Shah *, isfahan*.

[< previous page](#)

page_49-15

[next page >](#)

Plate XVII





The Interior of the Mosque of Nizam * al-Din* Awliya, Delhi.

[< previous page](#)

page_49-16

[next page >](#)

Plate XVIII





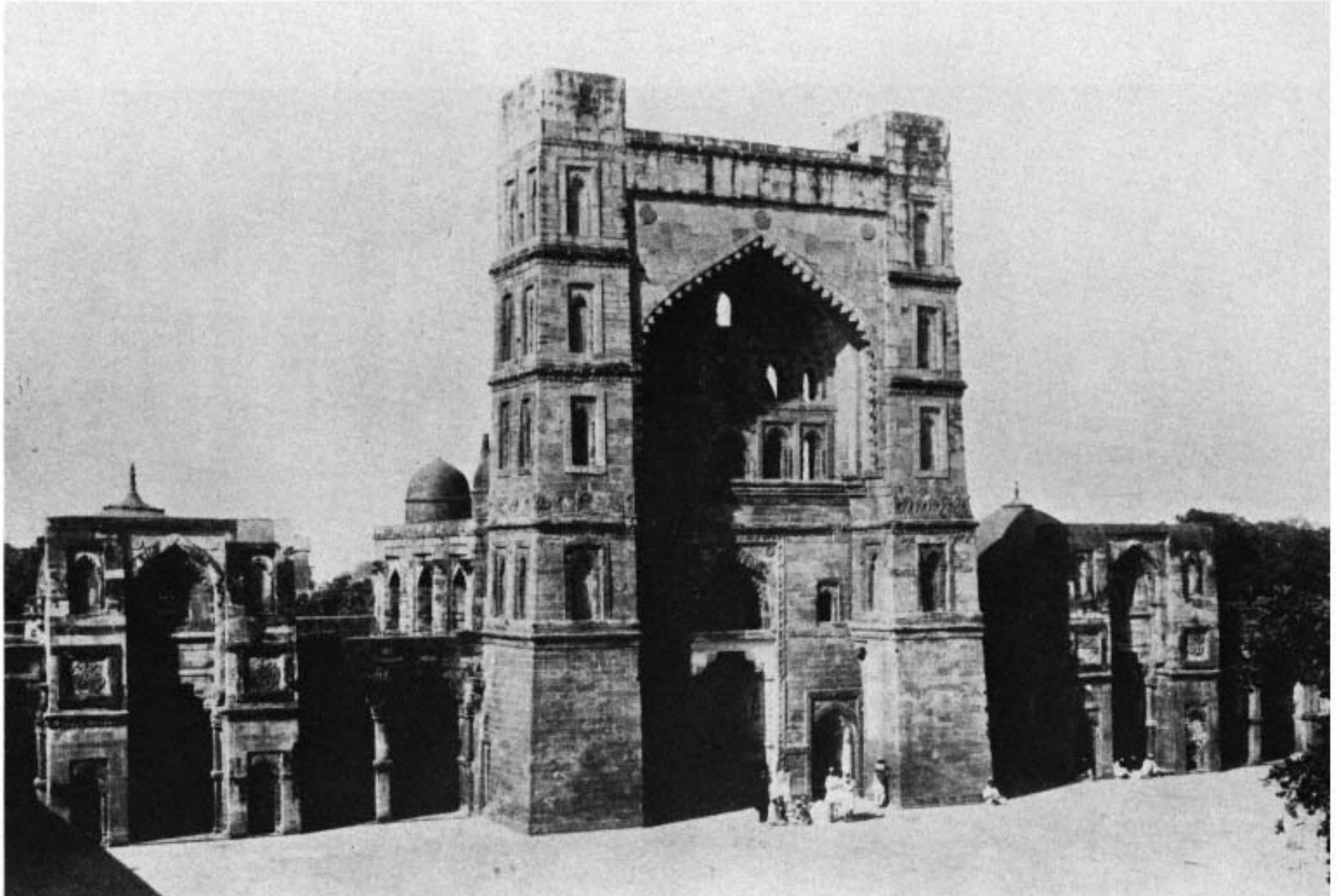
The Interior of the Jami * Masjid, Mandu-.

[< previous page](#)

page_49-17

[next page >](#)

Plate XIX





The Façade of the Prayer Hall of Atala Masjid, Jaunpur.

[< previous page](#)

page_49-18

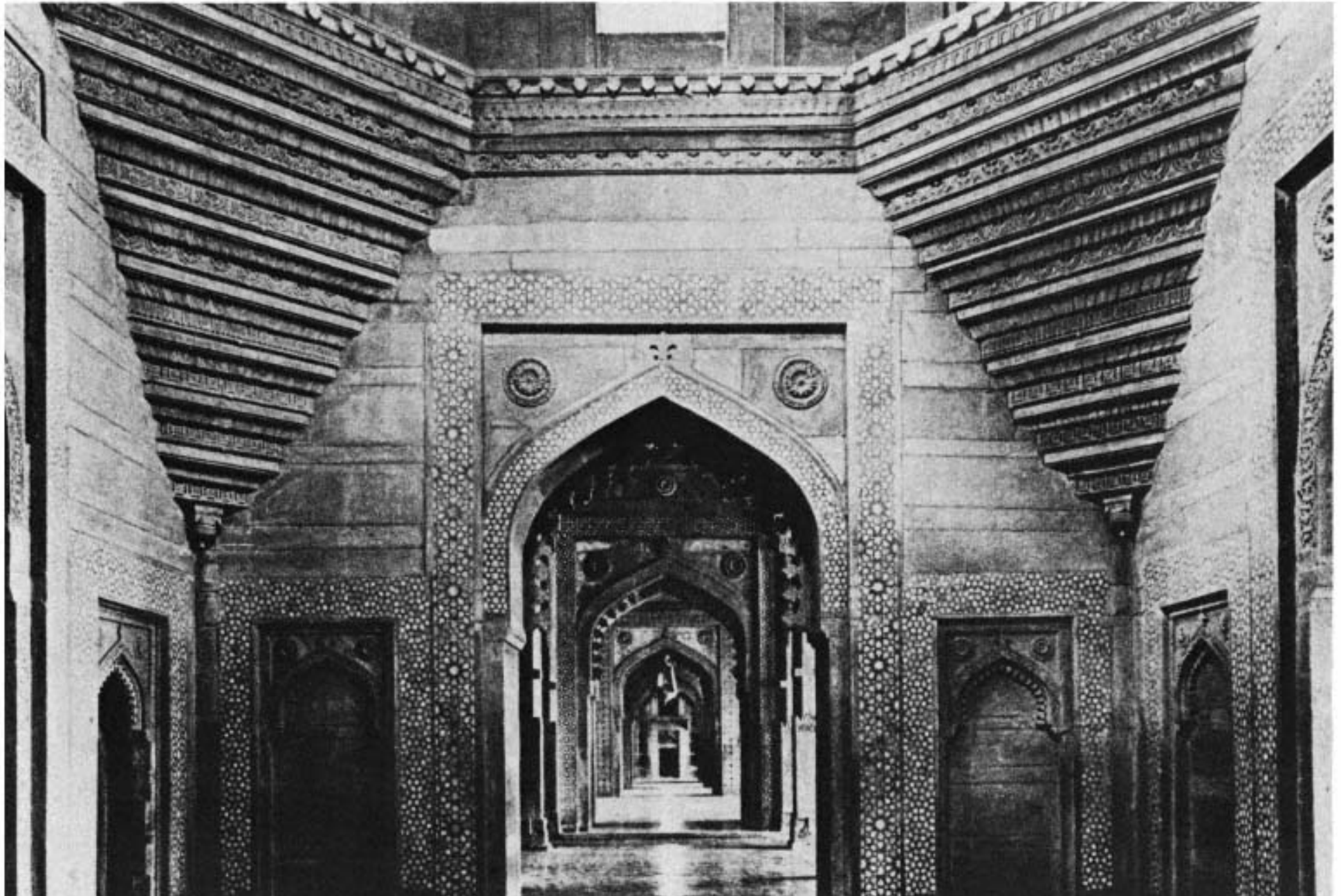
[next page >](#)

Plate XX



The Façade of Jami * Masjid, Ahmadabad*.

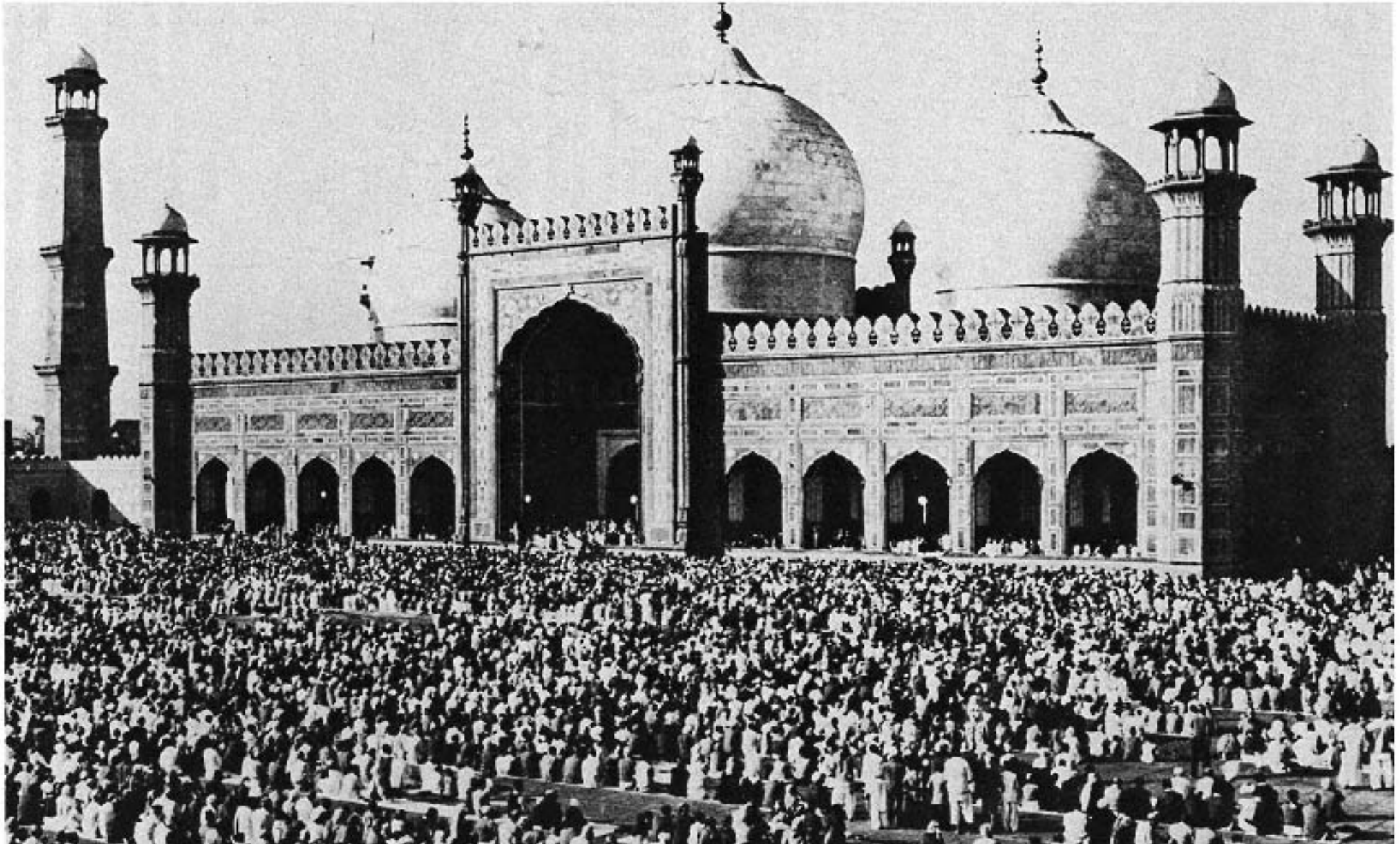
Plate XXI





The maqsura * of the Jami* Masjid, Fathpur* Sikri.

Plate XXII





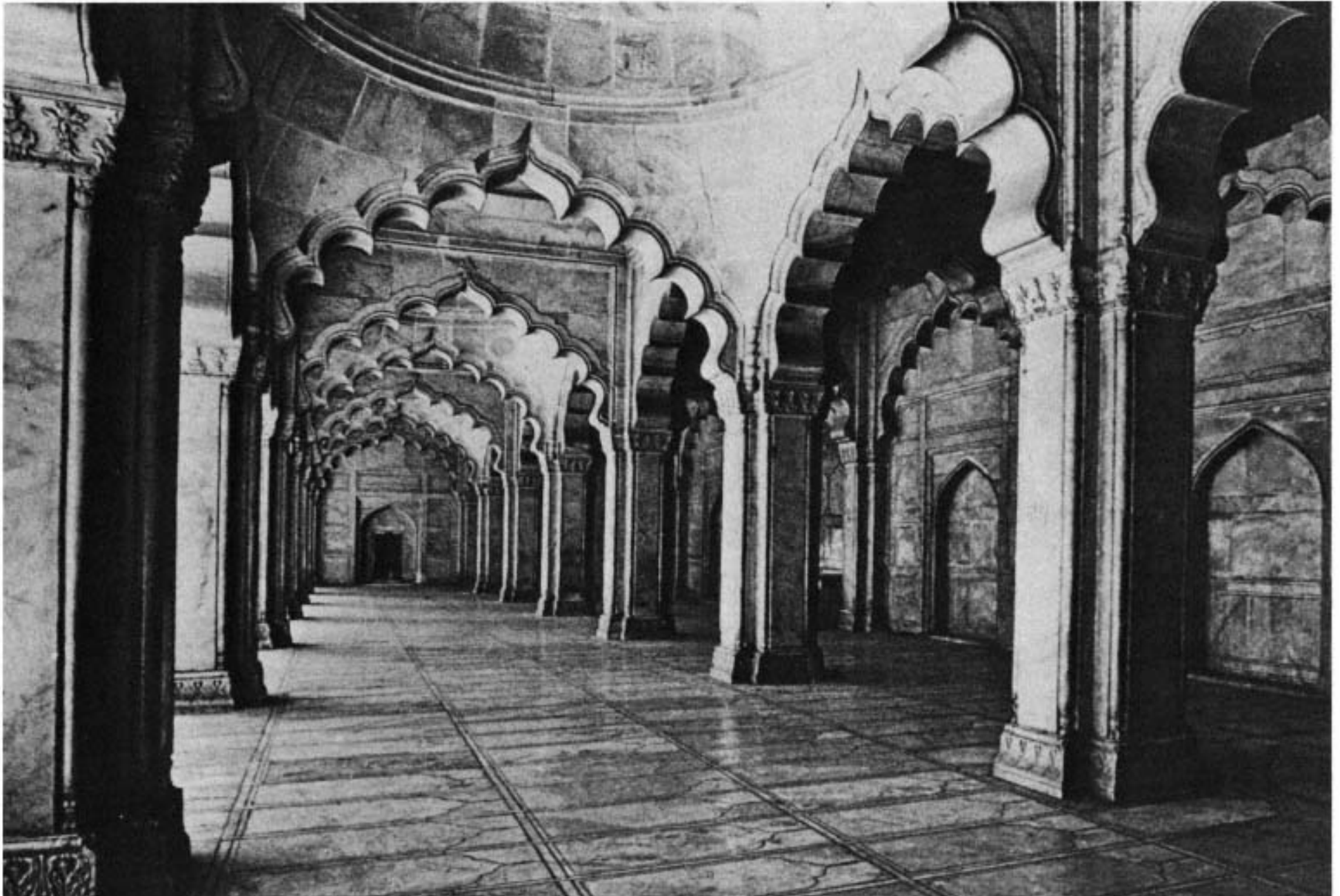
The Façade of the Badshahi* Mosque, Lahore.

[< previous page](#)

[page_49-20](#)

[next page >](#)

Plate XXIII





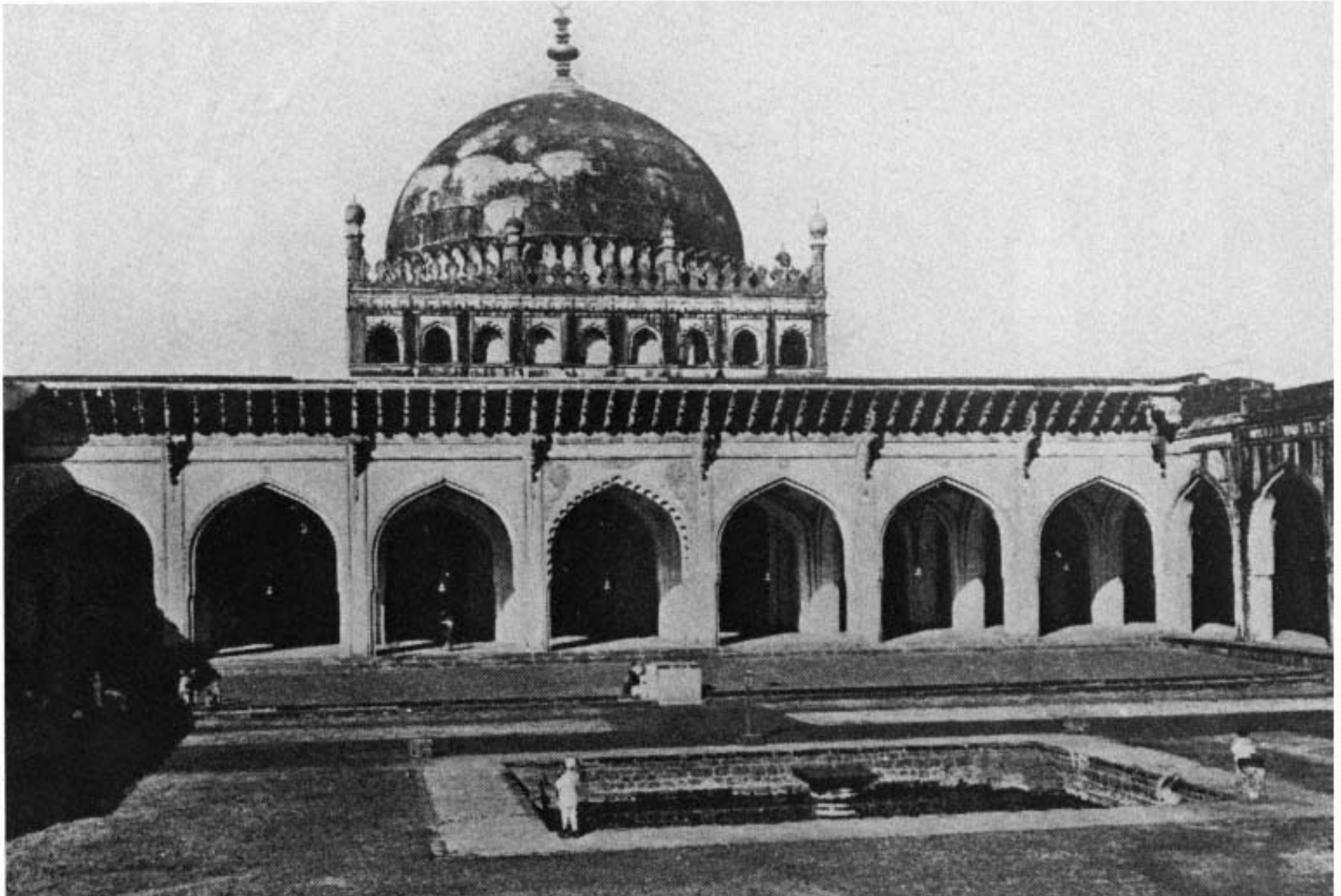
The Interior of the Moti * Masjid, Agra* Fort.

[< previous page](#)

page_49-21

[next page >](#)

Plate XXIV





The Jami * Masjid, Bidjapur*.

[< previous page](#)

[page_49-22](#)

[next page >](#)

Plate XXV





Ulucami (The Great Mosque), Divrigi.

[< previous page](#)

page_49-23

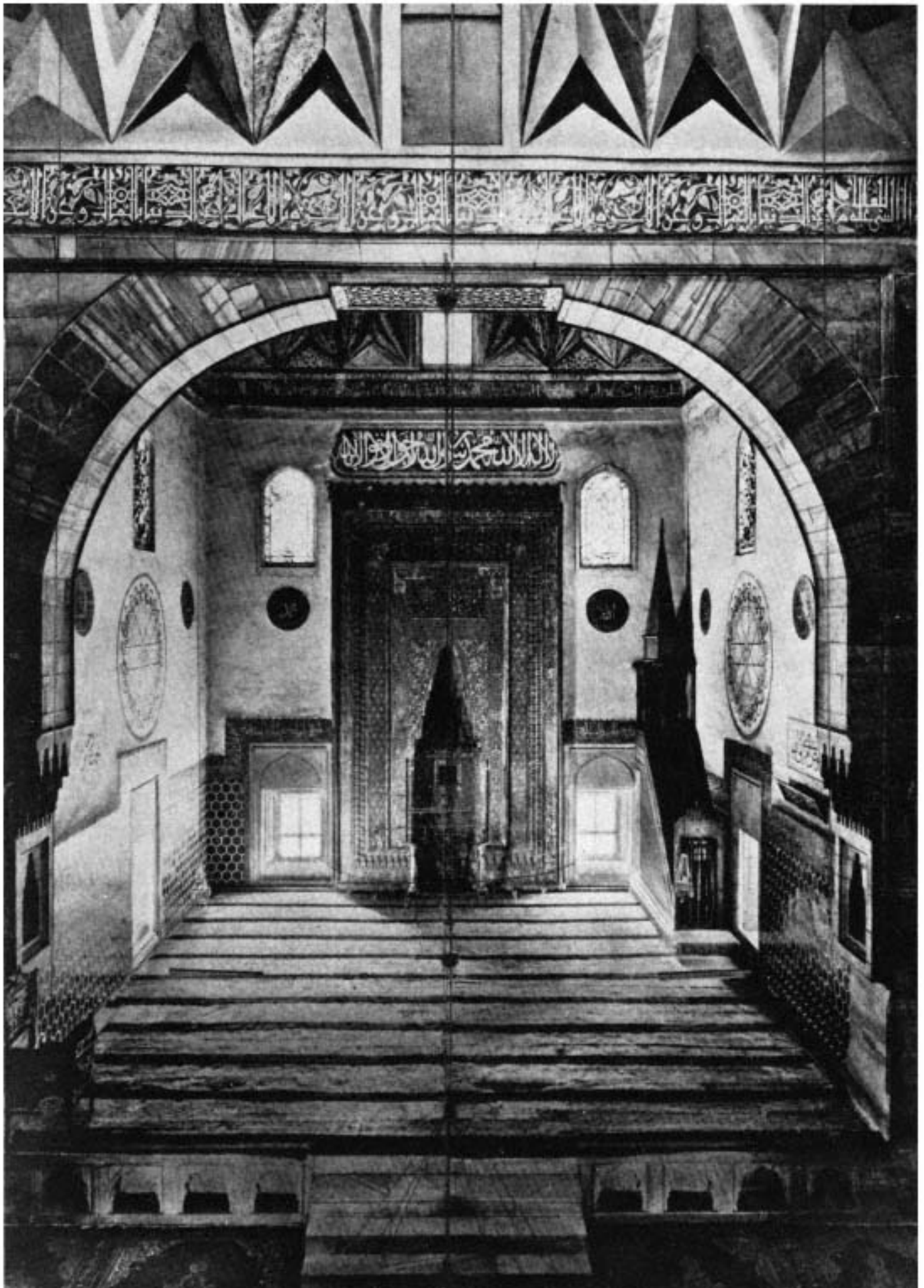
[next page >](#)

Plate XXVI



The Interior of the Ulucami, Beyşehir *.

Plate XXVII





The Interior of Yesil * Gami (the Green Mosque), Bursa.

[< previous page](#)

[page_49-25](#)

[next page >](#)

Plate XXVIII





The Mosque and the Complex of Süleymaniye, Istanbul.

[< previous page](#)

page_49-26

[next page >](#)

Plate XXIX





The Mosque of Sultanahmet, Istanbul.

[< previous page](#)

[page_49-27](#)

[next page >](#)

Plate XXX



The Interior of the Mosque of Selimiye, Edirne.

Plate XXXI





Interior of the Mosque of Sokollu, Istanbul.

[< previous page](#)

page_49-29

[next page >](#)

Plate XXXII





The Mosque of Mihrimah Sultan, Istanbul.

[< previous page](#)

[page_49-30](#)

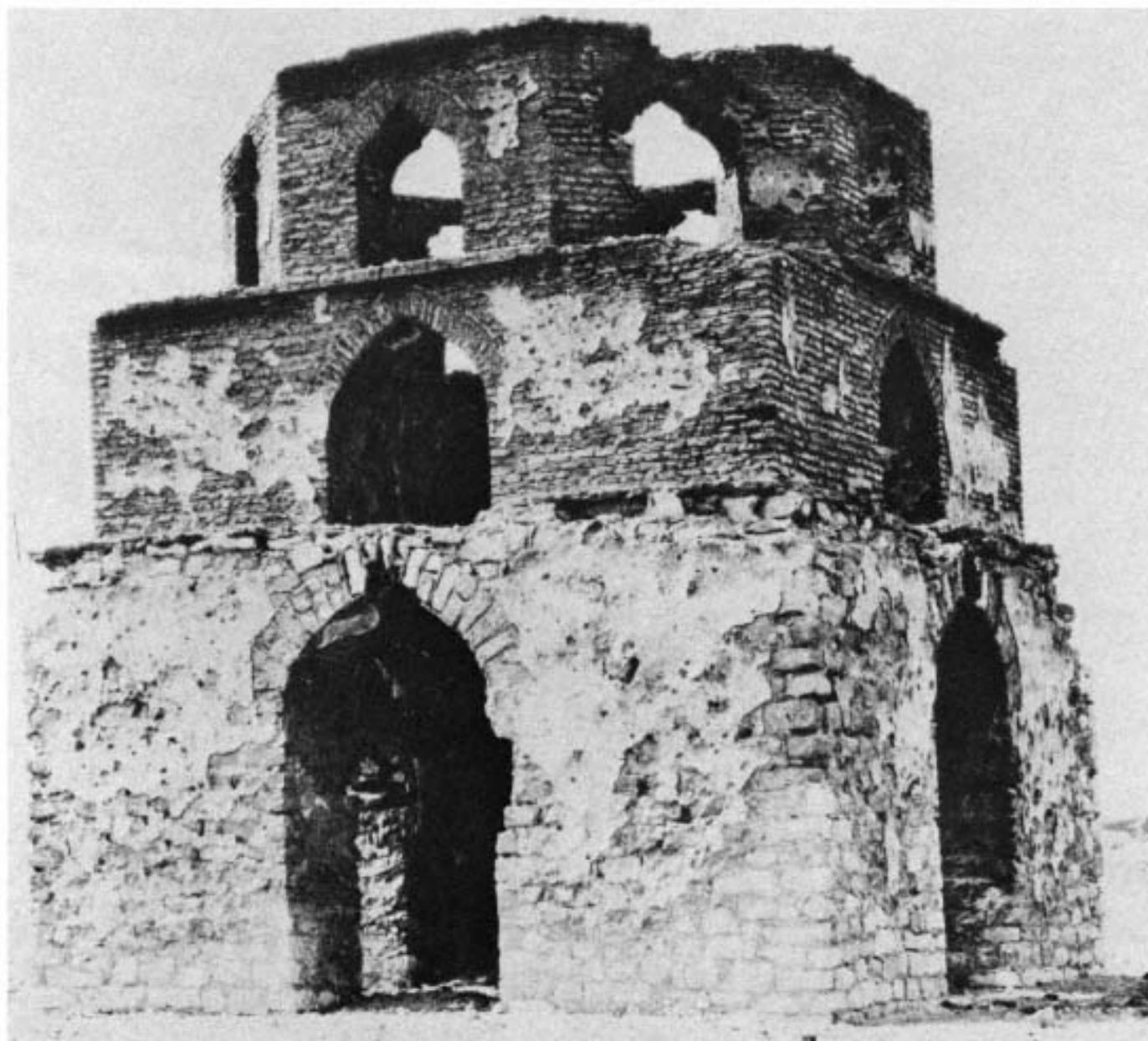
[next page >](#)

Plate XXXIII



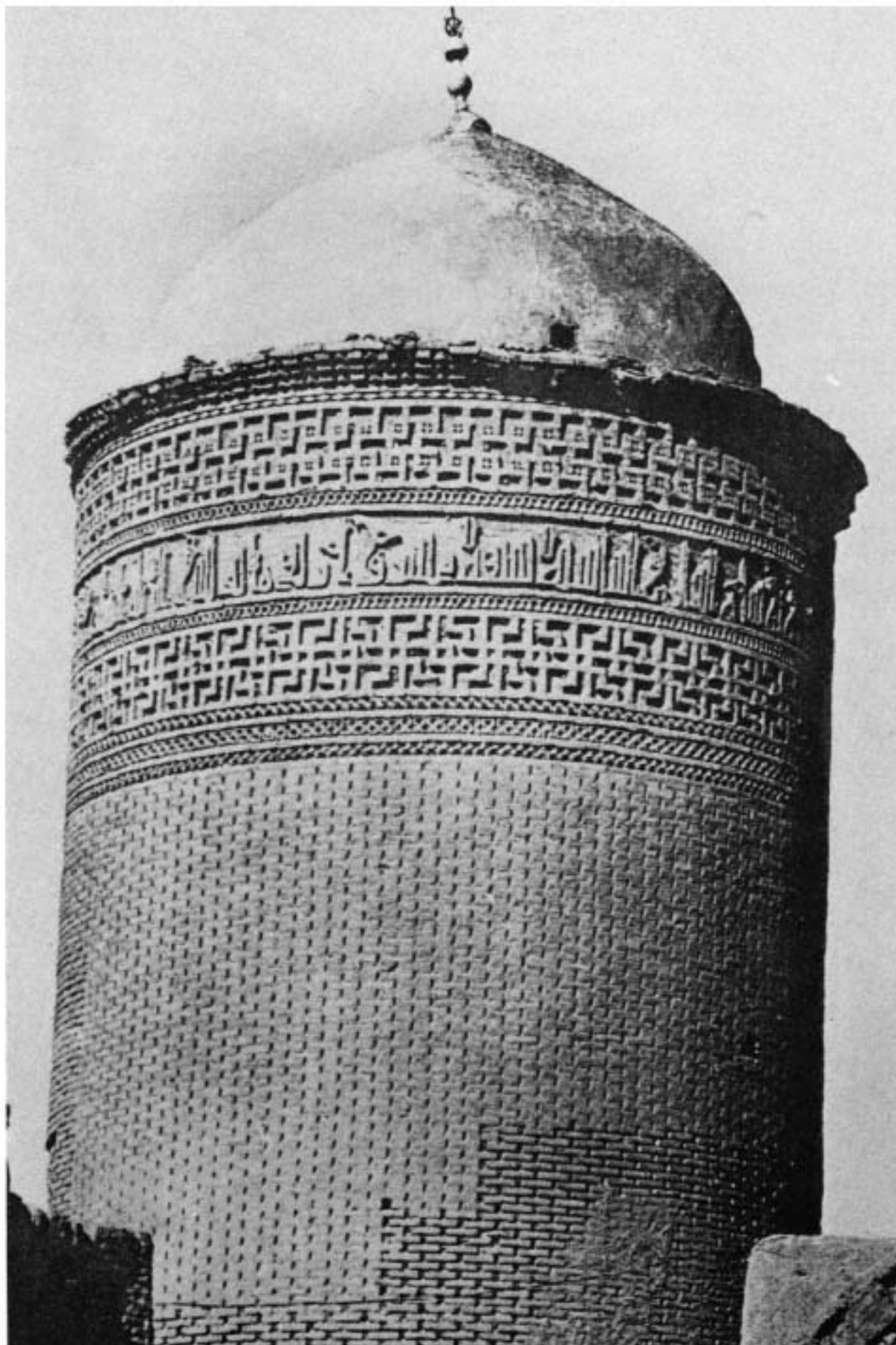
Qubbat as-Sakhra *, Jerusalem.

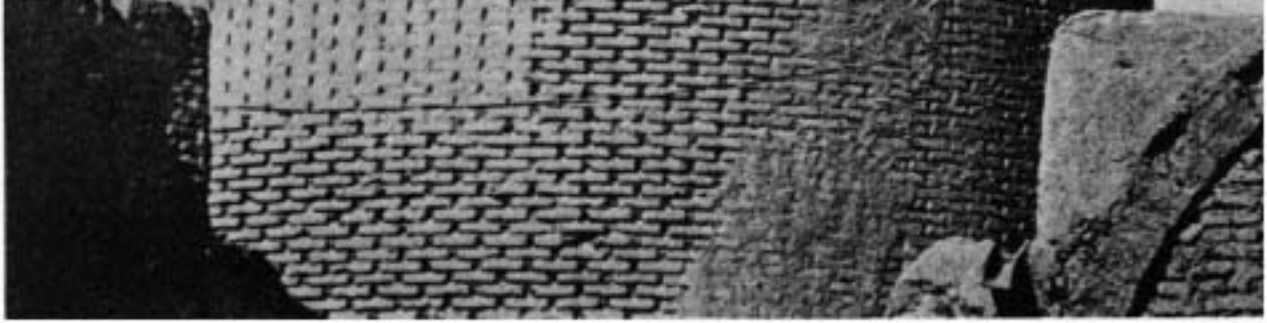
Plate XXXIV



The Tombs called Saba * Banat*, Fustat*

Plate XXXV





Tomb tower of Piri * alamdar*, Damghan*.

[< previous page](#)

[page_49-33](#)

[next page >](#)

Plate XXXVI



The Mausoleum of Gomec Khatun, Konya.

Plate XXXVII





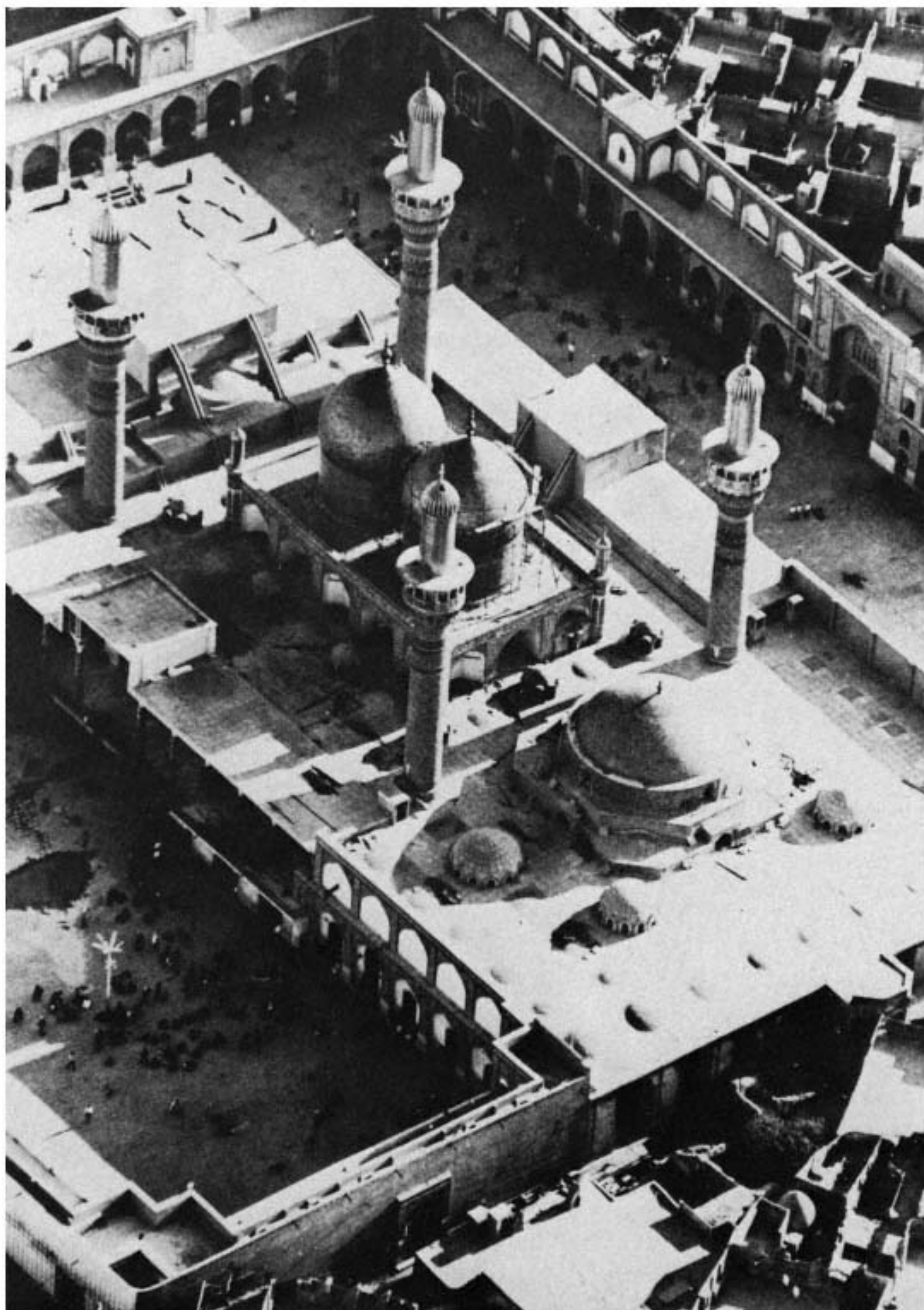
The tomb of Sultan Qalaun *, Cairo.

[< previous page](#)

[page_49-35](#)

[next page >](#)

Plate XXXVIII





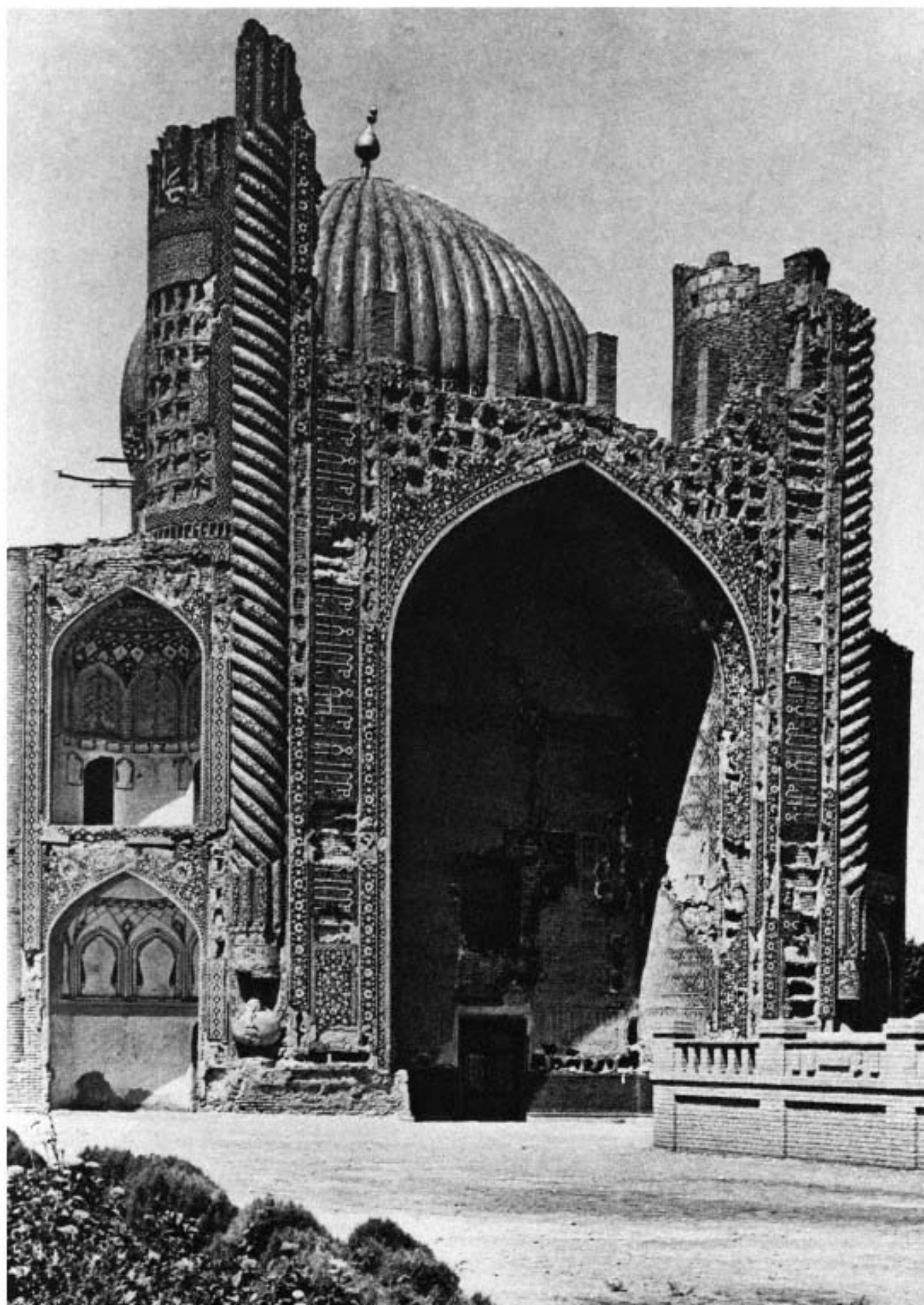
The Shrine of the Shiite * Imams*, Kazimain*, near Baghdad.

[< previous page](#)

[page_49-36](#)

[next page >](#)

Plate XXXIX





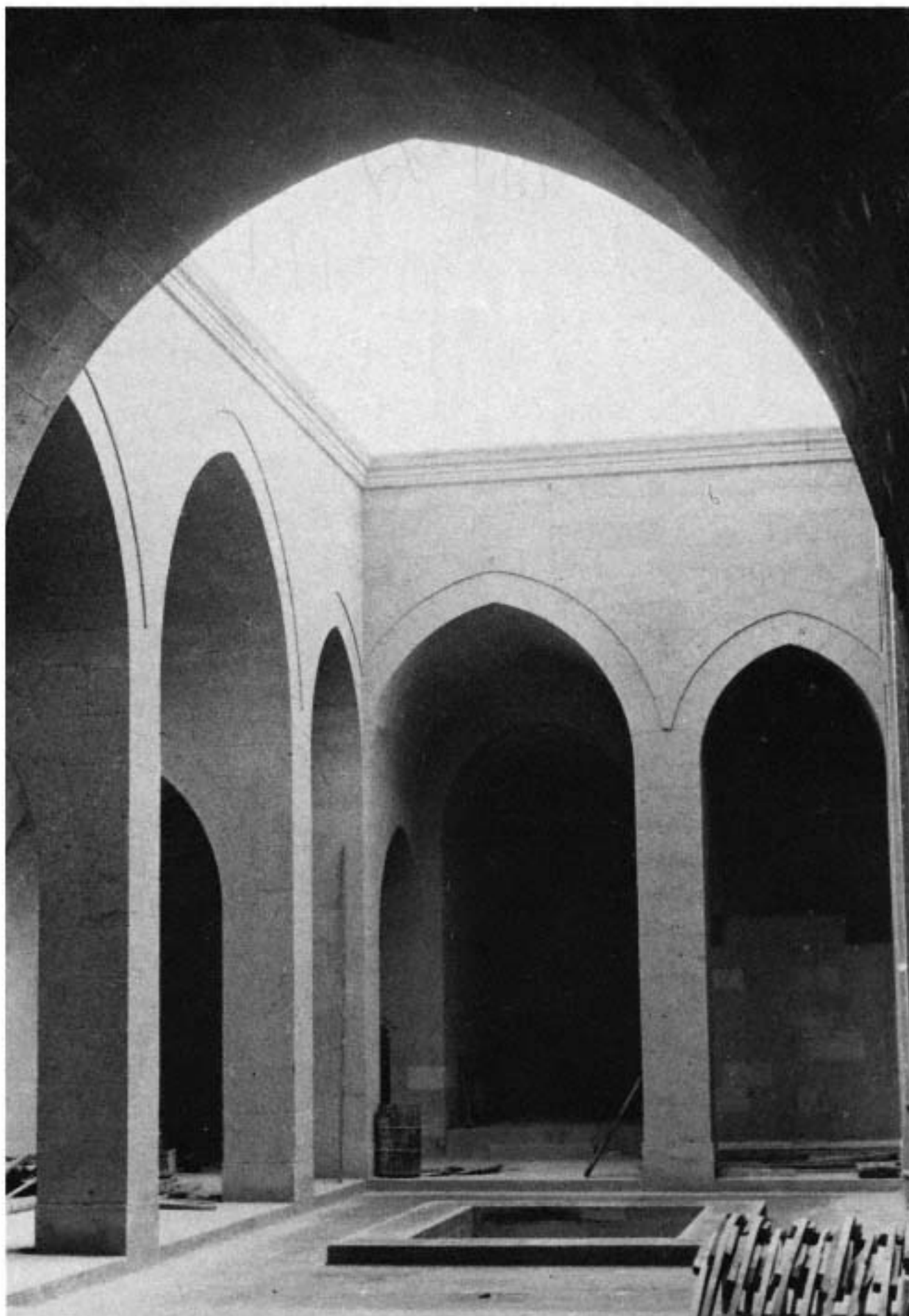
The Shrine of khwaja * Abu* Nasr* Parsa*, Balkh.

[< previous page](#)

[page_49-37](#)

[next page >](#)

Plate XL





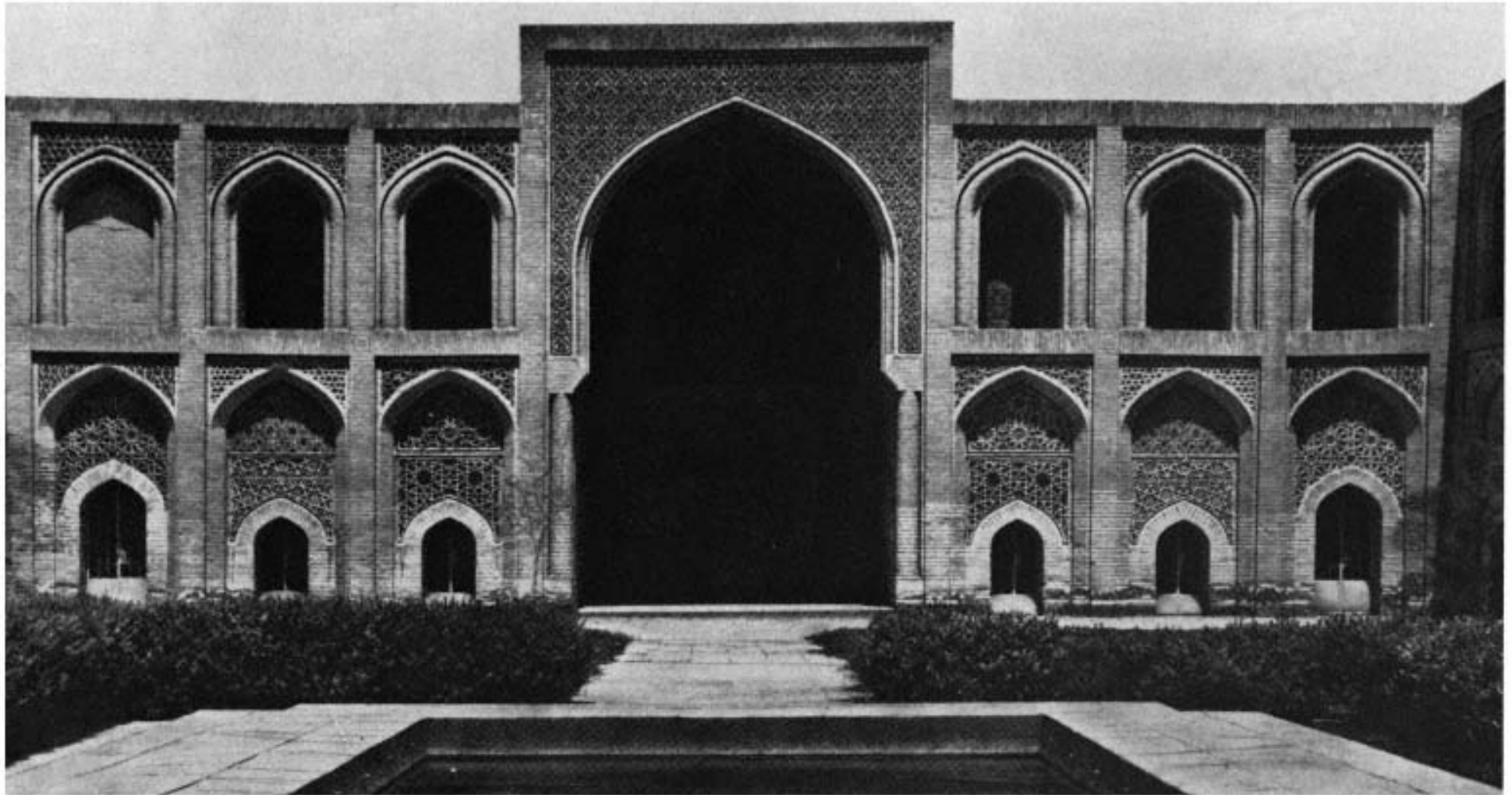
Çifte Medrese, Kayseri.

[< previous page](#)

[page_49-38](#)

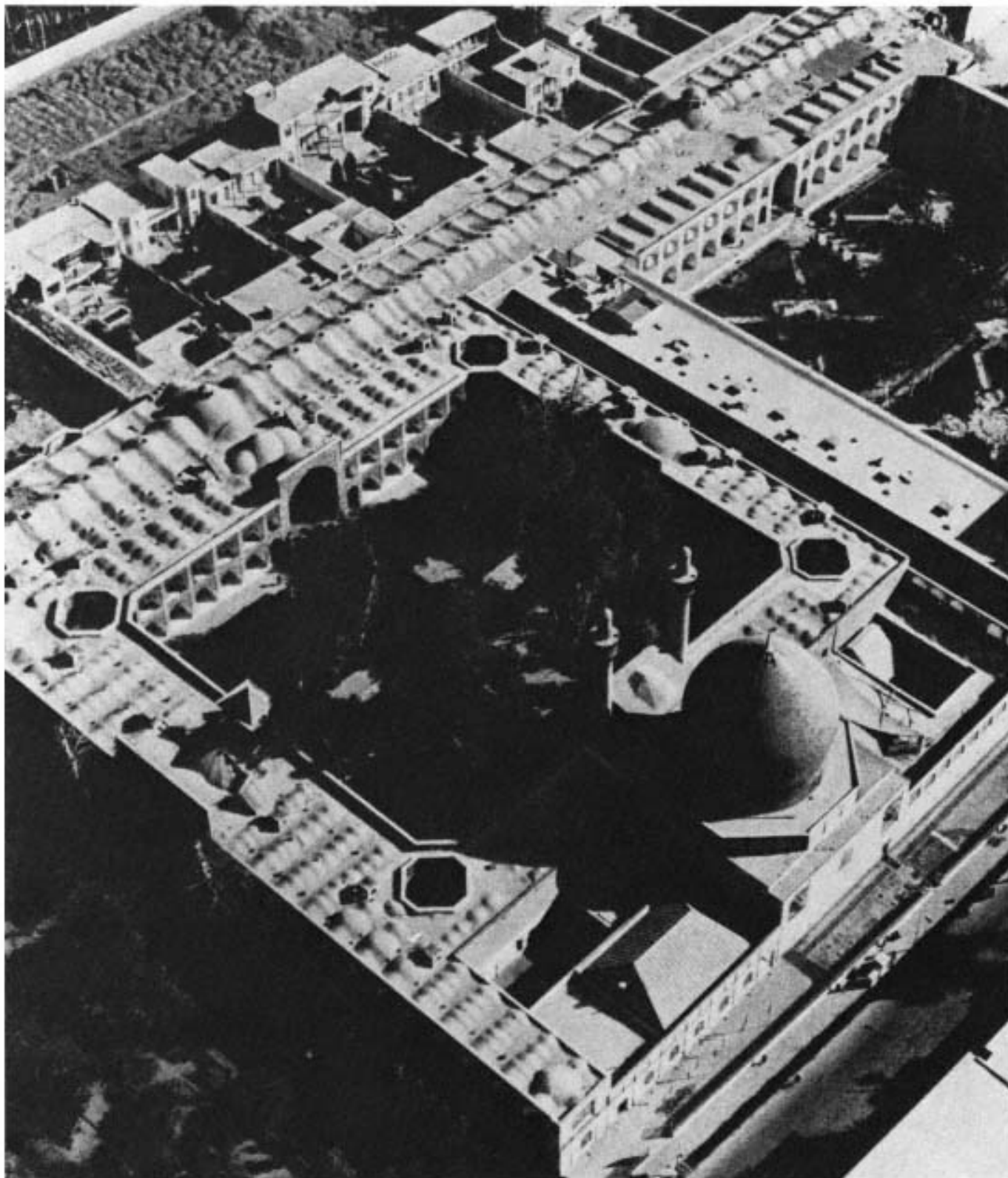
[next page >](#)

Plate XLI



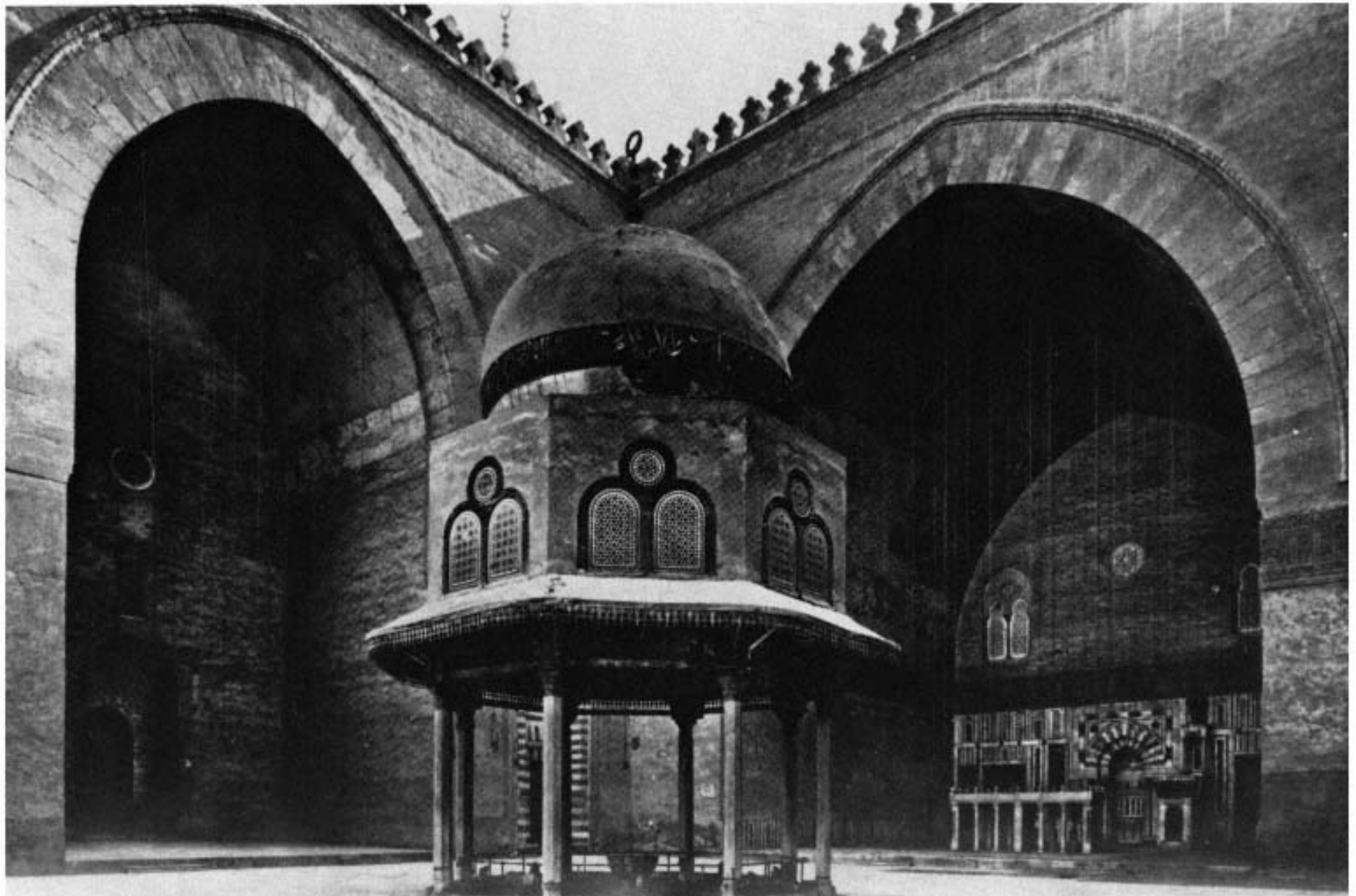
The Courtyard of the Mustansiriyya *, Baghdad.

Plate XLII



General View of the Madrasa of Shah * Sultan* Husain*, Isfahan*.

Plate XLIII





Courtyard and main Iwan * of the Madrasa of Sultan Hasan*, Cairo.

[< previous page](#)

page_49-41